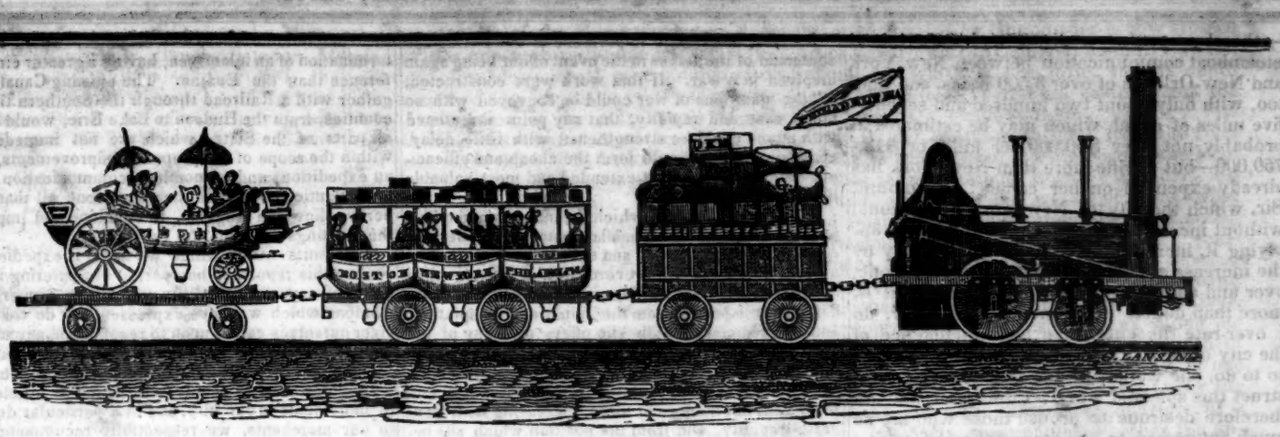

AMERICAN RAILROAD JOURNAL,
AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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CONTENTS :

Hudson and Ontario Ship Canal.....page 561
Ship Canal from Oswego to the Hudson; Internal Improvement..... 562
Report of the Chief Engineer of the Baltimore and Port Deposit Railroad Company..... 563
Improved method of Sheathing the Bottoms of Vessels 565
Animal Mechanics, (continued)..... 566
Remedy for Dry Rot; Twin-Passage Boat for Canals 567
Railroad Travelling in England; Steam Carriages on Public Roads; William Cobbett; Extract from Crawford's Mission to Ava, &c..... 568–9
Literary Notices..... 570
Foreign Intelligence 572
Summary 573
Human Life; Poetry;; Advertisements, &c..... 575–6

AMERICAN RAILROAD JOURNAL, &c.

NEW-YORK, SEPTEMBER 13, 1834.

HUDSON AND ONTARIO SHIP CANAL.—The following communication came too late to hand for last week's Journal: we give it, however, although too late to aid in the object for which it was mainly designed.

Our views relative to the works to which it relates, are well known. Of the New-York and Erie Railroad we have often spoken: we have from its first agitation taken a decided stand in its favor, and shall not cease, while we live, to urge the importance of its early accomplishment, until we shall have taken an excursion on it to Lake Erie. Our opinion, however, of the importance of this road, and the obligation which we consider the State under to aid in its construction, does not prevent our feeling warmly interested also in the work named at the commencement of this article. We have had occasion, more than once, to speak of it; and we shall often hereafter refer to it, and do all in our power to promote its accomplishment—believing, as we do, most religiously, that to aid in such works, is to promote the happiness, improvement, and welfare of the great mass of the people, and that too without detracting a particle from the comfort of those not immediately benefitted by the particular work. With these views relative to the two most important works in this State, and, perhaps it may be said, in the United States, we are desirous to see the friends of each pursuing a conciliatory course, and where opportunity presents, aiding and forwarding the other. The friends of neither need be apprehensive that there will be a lack of business for them. No one who looks over the immense fertile country far west, which must, or rather will, if permitted, find a market in this city, will, we think, doubt the necessity and propriety of the adoption of early measures to ensure their completion, or entertain any apprehensions of their want of business to render them a profitable investment to the stockholders, or to the State, if constructed under its direction, as the canal should be; but the railroad should be managed by a company, the State contributing *at least one-third* to its stock, and of course receiving its share of the profits. Our reasons for this opinion are, that the establishment for transportation should also belong to the road, and not to a separate company, as then the whole would be managed together, and more harmoniously.

To the Editor of the Railroad Journal:

I perceive, Sir, by the newspapers, that a convention is to be held in the city of Utica, on the 11th inst., for the purpose of taking into consideration the importance of constructing a STEAMBOAT CANAL from Oswego, on Lake Ontario, to Utica, and eventually to the Hudson river. This, Sir, is a subject of vast importance to the city of New-York, as well as to Utica and Oswego, and must therefore be constructed at an early day, if our citizens desire to retain the present, and also to secure the rapidly increasing future trade of the great West.

The rapidity with which the fertile lands of Michigan, Illinois, and Indiana, bordering mainly on the great lakes, or rivers easily made navigable, are brought into cultivation, has seldom, if ever, had a parallel; and the ease with which a crop of wheat is raised on much of those lands, is unknown to, and can hardly be imagined by, those who have not visited them. It is not uncommon for a man who has the means, to put in 100 or more acres of wheat the first year of his residence on his new farm; much of which, perhaps most of it, being *prairie*, requires only a powerful team, with a sharp plough, after having burned the grass, to prepare it for sowing. Thus, you will perceive, Sir, that immediate cultivation of the soil will follow, and immense quantities of grain will be raised in that country, if a ready and cheap mode can be devised for transporting it to market. The important question, therefore, to be answered, is, how shall this be accomplished? I ask *how* shall a *direct*, *easy*, and *cheap* communication be opened between the Hudson and Mississippi rivers?

Will you allow me, through your Journal, to give my views, and at the same time to ask of those who have more intelligence upon the subject, and more leisure to investigate it, an expression of theirs through the same medium, that the public may be informed as to its feasibility and importance?

I would commence operations upon the section between Oswego and Utica, which might be completed by the time the Utica and Schenectady Railroad shall be ready for use, upon which and the present canal the trade of the lakes and the northern part of the State of of New-York will be accommodated, until there shall be time to enlarge the present canal from *Utica to the Hudson, and also to construct a Steamboat Canal around the Falls of Niagara*, thus opening a direct communication between CHICAGO and New-York, by which wheat may be transported, as I am informed, for less than 20 cents per bushel. By this arrangement we shall be prepared to intercept a good part of the trade of the upper lakes, passing through the Welland Canal; and which, unless so intercepted, when the present improvements in course of construction around the rapids of the St. Lawrence, with locks 200 by 55 feet, with 9 feet of water, shall be completed, will find its way to Montreal and Quebec.

To the city of New-York, Sir, I consider this work of great importance. To its inhabitants, then, but more especially to the owners of real estate, and to the MERCHANTS of New-York, would I address myself, and ask them to reflect one moment upon the interest they have at stake in the completion of this work. Let them not fold their arms, and say "we are sure of the trade we now have and also of its regular increase." Let them not rest easy until by their exertions they shall have effected the adoption of this important, and another *equally*, at least to a certain section of the State, important work—I mean, Sir, the NEW-YORK AND ERIE RAILROAD, a work of so much importance to the *southern* part of New-York, and, as it is now ascertained, of so easy accomplishment, as to demand a prompt adoption by our next Legislature—a work, Sir, *too long delayed*, when so loudly called for, and so much needed, by so large a portion of the State.

With the immense and rapidly completing works of Pennsylvania, on the one hand, and the progressing works of Canada, on the other, New-York must, indeed, be blind to her own interest, if she hesitates one moment in adopting and pushing forward these two grand works of improvement, which will place her *beyond competition* for the trade, at least, of the vast region of fertile country bounding upon the great "inland seas" of the west. *This*, however, is not all: complete *these* two works, and another of equal importance to New-York will follow—I mean from CHICAGO, on Lake Michigan, to the navigable waters of the Illinois river,

—thereby opening a direct and safe inland steamboat communication between New-York and New-Orleans of over 3,500 miles, and that too, with only about two hundred and seventy-five miles of canal, which may be estimated at probably not over $50,000 per mile, or $13,750,000—but a trifle more than New-York has already expended on her canals: an amount, Sir, which the city [of New-York alone could without inconvenience furnish; and by so applying it, increase the value of its property by the increase of business from this source alone, over and above what it would be without it, more than double that amount. And, Sir, do I over-rate the enterprize and intelligence of the city of New-York, when I say, if permitted so to do, she would, at her own expense, construct this splendid work? I think not, and am therefore desirous to arouse those who are so much interested to the importance of taking part in the proceedings of the Utica Convention on the 11th—a period, by the by, very convenient for the subject, being the day after the meeting of the two political State Conventions, at the same place and at Herkimer, at which will undoubtedly be assembled delegates from every county in the State, and who may come prepared to take part in its deliberations.

A NEW-YORKER.

SHIP CANAL FROM OSWEGO TO THE HUDSON.—Our columns furnish the report of a Committee of the Chamber of Commerce, made some time ago, in relation to this magnificent project, and to the interest which this city in particular has in its accomplishment. No order has as yet been taken by the Chamber on the matter—meanwhile we ask attention to the statements and reasoning of the Report, and have only space to add here, that a Convention is to assemble at Utica on the 11th inst., (next Thursday) of delegates from the various counties, and from this city, more immediately interested in such an improvement.—[N. Y. American, of Monday, 8th inst.]

Report of the Committee of the Chamber of Commeree, upon the Letter of "the Corresponding Committee of the Citizens of the County of Oswego."

The Letter and Documents which were referred to us, indicate two projects of great importance to the nation at large, and especially interesting to the people of this State: the first proposes the *construction of a Ship Canal around Niagara Falls*, by means of which a communication will be effected between Lake Ontario and the upper Lakes. Vessels navigating Lake Erie and Lake Ontario can now approach within eight miles of each other, and the proposed work would not, probably, much exceed that length. We have no calculation of its cost, except an incidental assertion of the Committee of the Citizens of Oneida County, that a Canal, of sufficient capacity, to meet all the probable wants of our inland Commerce, can be completed for less than two millions of dollars: but, if the opinion of its importance which those gentlemen have expressed be correct, the question of expense is unworthy of the consideration of the Government of the United States, under whose superintendence it should be executed. We will briefly state some of the reasons which have been urged, why this should be a National Work.

1. The large number of States whose resources would be thereby developed, and their productions borne to a market with greater economy of time and money. New York, Pennsylvania, Ohio, Indiana, Illinois, and Michigan Territory, are all directly interested, being bounded in part by the chain of Lakes on our Northern frontiers; Kentucky and Western Virginia have an indirect interest in the project, through their communication with Lake Erie, by means of the Erie and Ohio Canal; and States more remote, by their artificial works and the means of communication which Nature has provided, would largely participate in that increase of facilities, and advancement of prosperity, which would result from the completion of this magnificent enterprize.

2. The chain of Lakes furnishes the natural and expeditious mode of communication with the Indians of the North-west. The removal of the chief impediment which obstructs their navigation, would enable the Government to give greater efficiency to its paternal zeal in favor of this unhappy race, and by bringing them nearer to the blessings of civilization and Christianity, change them from cruel foes or capricious friends into industrious and useful neighbors.

3. The inestimable importance of our having the command of the Lakes in the event of our being again involved in a war. If this work were constructed, all the munitions of war could be conveyed with so much ease and rapidity, that any point threatened with attack could be strengthened with little delay, and a single fleet would form the cheap and efficacious defence of our most extended and most valuable line of frontier.

4. The rapidity with which the industry and enterprize of the people of Canada, sustained by the rich rewards of a fertile soil, and encouraged by the munificent policy of their Government, is raising up a dangerous rival in our immediate neighborhood; dangerous in peace, from the numerous temptations and inducements which she offers to many of the most productive regions in our country to seek with her a market for the sale of their own products, and the purchase of foreign commodities; and in war, from her numerical force, increasing with wonderful rapidity, and from the position which she occupies in relation to us, a position which she is continually strengthening. From the Documents accompanying the letter referred to us, it appears that the emigration from the British Isles to the Canadas averages 50,000 annually; that, in addition to the Rideau and Welland Canals, several schemes of extensive intercommunication have been commenced; that the soil in general is extremely fertile; that, of the thirty steamboats which last year navigated Ontario and the St. Lawrence, only *three* belonged to ports on the American side; and, to use the language of a recent Memorial to Congress, "that, during the last five years, it has grown, in the resources of population and wealth, in agricultural improvements, commercial enterprize and industry, beyond what is known to have been accomplished within the same period in the most flourishing parts of our own favored country."

These considerations enforce the necessity of our acting with a liberal zeal, to counterbalance the exertions of so sagacious and enterprizing a rival; and if the Government of the United States should refuse to interfere, the project by which we shall at once be placed upon an equality with our competitor, and perhaps secure a superiority, is amply within the resources of our own State. When effected, the result will be that, instead of seeing the products of the most fertile portion of our Northern and North-western territory carried to Montreal, we shall have a large portion of our Canadian neighbors resorting to the market of New York, through the channel, the constructing of which is the second project suggested in the papers now under consideration.

This proposes to provide the means of passing vessels of from 100 to 200 tons burthen, from Lake Ontario to the Hudson, by improving the navigation of the Oswego River and Oneida outlet, making a navigable communication from the head of Oneida Lake to the Mohawk, and removing or overcoming the impediments which that river offers. The individuals recommending this measure are men of practical wisdom, who have long had the subject under consideration; and they confidently express the opinion, that a steamboat communication, by this route, between Ontario and the Hudson, would not cost more than two millions of dollars. An enlightened policy would induce our State to execute the work at ten times that cost, if we can credit the prophecy of Judge Wright, that "the completion of the Welland Canal, and of the Canal around the Rapids of the St. Lawrence, will secure to the Canadas one half of the trade of Ohio, Indiana, Illinois, and Michigan."

We have unquestionably derived great advantages from the Erie Canal, and we owe a large debt of gratitude to that illustrious man whose decision and energy created it; but it cannot be denied, that it has nearly reached the maximum of its utility, and that the resources of our industrious and enterprizing population require additional means for their full developement. Many bulky and heavy articles are excluded from the Canal by the rates of toll, and the number of these will continually enlarge, as the products of our skill and labor are increased. The great lumber counties lying along our Southern line are threatened with an entire exclusion, and are sometimes compelled to resort to the Baltimore market, over the Rapids and intricacies of the Susquehannah, instead of seeking that which habit and inclination would indicate. If a steam navigation were open from the city of New-York to Oswego, the numerous rivers and lakes which run through the central and Southwestern parts of our State, towards Ontario, would supply, with easy additions from Art, the means of junction with that Lake, which, upon the completion of these two schemes, would be the termination of an inland sea, having a greater circumference than the Euxine. The existing Canals, together with a Railroad through the Southern tier of counties, from the Hudson to Lake Erie, would bring all parts of the State, which are not immediately within the scope of the proposed improvements, into an expeditious and economical communication with the Atlantic. We shall then have done all that a liberal policy can suggest, to develope and improve the blessings of a bountiful Providence.

The limits within which we deem it expedient to confine this report, do not permit our entering into a detail of arguments and illustrations to support the opinions which we have expressed, nor do we consider ourselves called upon to recommend any immediate action by the CHAMBER OF COMMERCE; but, inasmuch as every question of internal improvements within our State is deeply interesting to all classes of individuals in our city, and in a particular degree to our merchants, we respectfully recommend the adoption of the following resolutions.

Resolved, That a Standing Committee be appointed to originate, receive, and answer communications of our fellow-citizens throughout the State, upon the subject of Internal Improvements.

Resolved, That the Secretary be requested to assure the Corresponding Committee of the Citizens of the County of Oswego, that this Chamber appreciates the public spirit which animates them,—concurs in opinion with them respecting the importance of the projects which they recommend,—and will cheerfully co-operate in attempts to conduct them to an early completion.

ISAAC S. HONE,
JOHN S. CRARY,
AUGS. WYNKOOP.

June 2, 1834.

INTERNAL IMPOVEMENT. — *Great Railroad from New-York to Washington, through Philadelphia to Baltimore.*—The continuous line of railroad which is intended to run uninterruptedly from New-York to Washington, through Philadelphia and Baltimore, is undoubtedly one of the most magnificent works of the present day, either in this country or in Europe. In point of extent it far surpasses any line yet possessing the slightest prospect of completion in the United States.

The series of railroads from New-York to Washington, under different charters, granted by different States, which combined into one continuous line, uniting the two large and all the intermediate cities in question, could be completed, *but for one obstacle*, in probably one year or eighteen months. This obstacle is the small section of 26 miles between Trenton and New-Brunswick, in New-Jersey; a section which is indeed under the operation of a charter for one of the old fashioned turnpike companies, but does not, *at present*, possess those powers of transportation and management which are necessary to transform it into a railroad.

We have procured from the best sources of information a full and accurate statement of the present condition and prospects of the whole series of these railroads, which, combined, will bring New-York and Washington within eight hours distance of each other, and of course, all the intermediate cities in like proportion. This information is so interesting that we cannot deny ourselves the pleasure of communicating it to the public.

And first, the railroad from Washington to Baltimore. The length of this section is 37 miles, being a branch of what is called the Baltimore and Ohio Railroad, chartered under the joint powers of Congress, and of the State of Maryland. This road is now in the process of construction. A large section is finished, and it is believed that it could be completed in less than a year.

2. From Baltimore to Port Deposite Bridge on the Susquehannah. This section is also chartered by the State of Maryland—the stock subscribed, the route surveyed and located, and could be put under contract and finished with great expedition. The road is nearly straight and very level—the only exception being a very small sweep up Port Deposite Bridge. Length of this section 41¼ miles.

3. From Port Deposite Bridge to the Maryland and Pennsylvania line — distance 10 miles. This section is also chartered, the stock subscribed, route surveyed and located, and only waits the action of the New-Jersey Legislature upon the Trenton and New-Brunswick section.

4. From the Maryland and Pennsylvania line to the Columbia Railroad, near Coatesville,—distance 20¼ miles. This section is also chartered, surveyed and located, being in the same situation as the two preceding sections. From Coatesville to the Susquehanna, the ground is particularly well adapted for a railroad. The line laid out runs along a gentle ridge, almost level the whole distance till it descends the bank of the Susquehanna. The ground resembles the famous ridge road of Western New-York.

5. From Coatesville on the Columbia Railroad to Broad street, Philadelphia,—distance 45½ miles. This is now in use. Not a word need be said of this section to a Philadelphia reader. It is crowded daily with passengers.

6. From Broad street, through the Northern Liberties, &c. to the Delaware river, distance one mile. Nothing need be said of this short cut.

7. From Philadelphia to Trenton Bridge,—distance 26½ miles. This section we have already described. It is nearly completed, and will be ready for the locomotive before the termination of the season.

8. From Trenton Bridge to New-Brunswick,—distance 26¼ miles. This is the only section throughout the whole line, from Washington to New-York, that is not chartered for a railroad. It is the condition of this section in which exists the whole obstacle to the completion of a line of railroad that would confer lasting benefits on the whole Atlantic seacoast—but of this, more anon.

9. From New-Brunswick to Jersey city, opposite New-York,—distance 30¼ miles. This section will be completed and ready for trade next year—more than half will be ready this season.

Thus, at one view, we have a continuous line of railroads through the whole route from New-York to Washington, a distance of 239½ miles, including the breadth of the North River, that could be constructed and made ready for travelling in about a year from this date, provided the Legislature of New-Jersey would remove the only obstacle that stands in the way of such a magnificent improvement.—[Phil. Inq.]

Report of the Chief Engineer to the President and Directors of the Baltimore and Port Deposit Railroad Company

BALTIMORE, March 29, 1834.

To the President and Directors, &c.:

GENTLEMEN,—At the commencement of the present year I had the honor of receiving the appointment of your engineer. In obedience to instructions accompanying the announcement of my election to that office, I set on foot as soon as practicable, a survey, the completion of which on the last day of February has enabled me to submit to you the following report. This survey, a plan and profile of which I herewith present, was made with all the rapidity consistent with a proper regard to accuracy in the field operations, as I was given to understand that it was important that I should lay before you its results at an early day, in order that application might be made to the Legislature of Maryland during its late session, for aid in the prosecution of the proposed work. Much exertion was made to accomplish this object, but without success, as the session terminated too soon after the completion of the surveys to allow time for the preparation of the necessary estimates and drawings. While I regret that the wishes of the Board could not be gratified as to the time of the presentation of the Report and map, I am glad of the opportunity which the delay has afforded, of rendering both of them more fully illustrative of the subject to which they refer.

In explanation of the map, I will describe the principal characteristics of the route which has been surveyed. The intersection of Boston and Hudson streets, near the margin of the Patapsco, a short distance west of Harris' creek, was selected as the point of commencement. From thence two lines were traced, one of them crossing the arm of the Patapsco just without the mouth of the creek, and pursuing the middle of Boston street to the eastern boundary of the city upon the shore of the river, passing close to the Mansion House Tavern, and turning to the left with a curvature of 2100 feet radius, until the Trap road is crossed; ascending thence the valley of O'Donnell's Run, east of the Canton race course, by a straight line, to the summit dividing that run from a drain of Harris' creek; then turning to the right by a curvature of 2300 feet radius, until a point is attained opposite the buildings forming the Orange farm improvement. This route is here joined by the other, which, proceeding from the starting point above described, occupies the middle of Hudson street to the bridge over the mouth of Harris' creek, where it begins to deflect to the left by a curve of 500 feet radius, and follows the bluff and serpentine eastern bank of that creek by a series of curvatures, of radii from 7 to 1200 feet, till, leaving the steep shores of the stream, it ascends by a line of very gentle flexure the favorable slope of that drain of it which heads at the Orange farm, uniting with the line first described near the farm buildings, about a quarter of a mile from the Philadelphia turnpike. Of the two lines, the Boston street route is the longest by half a mile, but has much the advantage in point of curvature, besides being recommended by other considerations of which the Board are already aware; the estimate has therefore been made upon it. From their point of re-union, the single route thence pursued descends a drain tributary to Black River, by a line partly straight and partly curved, with radii of 17,000 and 10,000 feet, crossing the North Point road near its own level, and lying upon ground in which moderate alternate cutting and filling is required. The tide-water of Back River is then crossed, near the residence of General Stansbury, the width of the crossing, which is somewhat oblique, being 900 feet, and the level of the road assumed at 18 feet above medium tide. The route now conforms to the course of Northeast Creek, whose banks are bluff, and broken by inlets, from the tide receding to various distances from the general line of the margin of the creek. This part of the profile, therefore, presents a rough aspect, though the cuttings and fillings are neither very long nor deep; numerous culverts will be required on this portion of the line. The principal branch of North-east Creek is now crossed in the vicinity of Mrs. Stemmer's mill, a little to the left of which the line passes, and along the north side of the mill-pond, ascending a drain supplying the pond, and crossing a ridge between it and a drain of Middle River, about half a mile north of the meeting house. This ridge is the highest ground encountered between North-east Run and the Gunpowder. The route then crosses several other drains of Middle river, the dividing ground between which is in every instance of moderate elevation. The last of these drains being passed near the termination of a range of highlands called the Blue Hills, separating the waters of Bird River and Middle River, the route soon after reaches ground sloping towards Bird River, which lies to its left, and crosses two or three of its small tributaries, traversing for a considerable distance the extensive and finely cultivated tract belonging to Robert Oliver, Esq. and attaining the bank of the Gunpowder at a point about three quarters of a mile to the left of his mansion. The Gunpowder is now crossed from Cedar Point to Caldwell's Point, between which its width is one mile, and its depth from 5 to 8 feet. From its eastern bank the line ascends a shallow ravine, passes a low summit, and, avoiding an inlet from the river which is encountered a little beyond the head of that ravine, ascends towards the dividing ground, separating the waters of Gunpowder and Bush rivers. This summit being attained, a descent towards the latter river is commenced, and the route reaches it after passing over ground of a favorable character, crossing two small streams running into Bush River, and approaching its western bank along the easy slope of Dulany's Creek. The width of Bush River at the place of crossing is one mile; above the mouth of Dulany's Creek the width is not more than three quarters of a mile; but it is questionable whether the approach to the west bank of the river, at the last point, would be as favorable as that of the line surveyed. A comparative location of the two routes connected with the two crossings, can alone determine this question. On arriving at the east bank of Bush River, the depth of which is from 6 to 8 feet, the ground is found to rise rapidly from the beach, and a cutting, whose extreme depth is 17 feet, must be encountered for about half a mile; after getting through which the route reaches the gently undulating ground dividing the waters of Church Creek from those of Sod Creek, or Beaver Dam. To the surface of this ground the road-bed may be so closely accommodated, for a distance of about four miles, as to render the graduation very cheap. No stream is crossed in this distance, and consequently no masonry will be required. About two miles west of Swan Creek the hollow of Beaver Dam Branch is passed, beyond which an immediate deflection to the left becomes necessary to accommodate the high ground between those two streams. A pretty favorable pass through this ridge is found near to Hall's Cross Roads, on the post road to Havre de Grace, where the route bends again to the right for the purpose of occupying a ravine which affords the only advantageous approach to Swan Creek, whose banks are of the most irregular and precipitous character, indented by deep coves, and rising almost vertically from the water to heights of 40 and 60 feet. The part of the line connected with the crossing of Swan Creek will be costly, on account of the great difference of level between the ridge at Hall's Cross Roads and the waters of this creek, and the short distance between them, which make it necessary to cut deeply into the ridge, and embank to a considerable height upon the creek, in order to obtain a grade of moderate inclination. Ascending from the tide of Swan Creek, the route again assumes the most favorable character; and crossing several tributaries of that creek and the Susquehanna, it reaches the latter by a line of direct course and gentle undulation, leaving the town of Havre de Grace about half a mile to the right, and striking the river at the base of the highlands which form its border. From its encounter with the Susquehanna, the survey passes over ground of a character totally opposite to that which it has hitherto traversed. The tide washes the bottom of the rugged hills which confine the river, leaving at high water no beach at their base. It will therefore be necessary to cut the road out of the steep declivity of the banks, pursuing the windings of their coves, and rounding their prominent points of rock by curves of short radii. A considerable quantity of rock must be excavated upon the first two miles of this part of the route; it will blast well, however, and much of it may be removed by the crow-bar, as it lies in loose masses, unconnected but by their weight. After passing these two miles, the river banks become of easier slope, and less stubborn material, and the west end of the Port Deposit bridge may be reached

without much further difficulty or expense. The best mode of getting upon the bridge will furnish matter for deliberation, and may be attended with some inconvenience, as, from the confined character of the adjacent ground, the axis of the bridge must be at right angles to the line of the railroad, till within a very short distance of their meeting. In the crossing of the bridge by the railway, it will be necessary to raise the surface of the islands dividing the different sections of the structure, to a level with its flooring, and provision will probably be demanded for strengthening it to bear the heavier burthens it will be required to sustain, compared with those which have hitherto passed over it. The conveyance of the road down the Susquehanna to a junction with the foot of the inclined plane terminating the Oxford Railroad, and to a connection with the town of Port Deposit, will be managed with sufficient facility. The survey terminates in that town at a point opposite the Methodist church.

In addition to the line actually surveyed, the map exhibits a view of several collateral routes which were examined, and which, in the location of the road, would demand attention. A particular description of them is considered unnecessary, as their characters will appear from an inspection of the drawings.

I will now present an estimate of the cost of the different parts of the projected work, under the several heads of the graduation, masonry, pile bridging, and railway.

THE GRADUATION.

The excavation and embankment upon the 35¼ miles of the route from Baltimore to the Susquehanna, has been calculated with considerable exactness, and the line between those points is divided for the convenience of the estimate into 26 sections of various lengths. Upon the 5¼ miles from where the route touches the Susquehanna, to Port Deposit, no sufficiently precise computation of the quantity of material removed in the formation of the road-bed could be made, in consequence of the rugged nature of the ground embraced in that part of the survey, over which, in the brief time allowed, a location could not be made as a basis for the necessary calculations. This latter part of the route will therefore be estimated separately, by comparison with other ground of a similar character, on which railroads have already been constructed. A near approach to the cost of graduating the entire line will thus be obtained, notwithstanding the approximate nature of the latter part of the estimate. The first section begins at the boundary of the city of Baltimore, about three-quarters of a mile from the starting point of the survey. This distance within the city it was thought best to consider by itself, as its graduation might be made under circumstan- not affecting that of the rest of the line: it is therefore called the "city section." In stating the quantity of earth removed, no distinction is made between excavation and embankment, for the sake of greater simplicity.

[The tabular statement of the details of the estimate, showing the lengths of the sections, the number of cubic yards in each, the cost per cubic yard, and the entire cost, is omitted, and the general results presented as follows.]

The united length of the 26 sections above specified is 32 miles 2581 feet, upon which the aggregate quantity of earth to be removed and supplied is 599,829 cubic yards, at an average cost per cubic yard of 21 $\frac{0.2}{100}$, cts. making the total cost equal to the sum of $126,099 20, which, for the above distance, is at the average rate of $3881 31 per mile for the removal of the earth alone. About 10 miles of the route passes through timbered land, the clearing of which for the necessary breadth may be estimated at $250 per mile, or for the whole distance, $2500, which, added to $126,099 20, makes $128,599 20, or per mile $3,958 26.

The cost of graduating the part of the route which pursues the precipitous bank of the Susquehanna, from the end of the 26th section to the bridge, and thence to the town of Port Deposit, I have approximately estimated as follows, guided by a comparison of the ground in question with a hill side of a similar character occurring in the ravine of the Patapsco, upon the route of the Baltimore and Ohio Railroad.

7000 feet at the rate of	$2 50 per ft.	$17,500
6500 " "	1 00 "	6,500
14780 " "	50 "	7,390
28280 feet graded for the sum of		$31,390

at the rate of $5860 06 per mile.

Upon the city section the quantity of earth to be removed is estimated at 18,385 cubic yards, which, at an average of 15 cents per yard, will cost $2757 75. A part of the line within this section crosses an arm of the Patapsco. No estimate is offered, however, for the necessary bridging, as I considered it probable that the improvements now in progress under the direction of the Canton Company, would embrace the extension of their water front along the line of Boston street, so as to provide a foundation for this part of the railway.

Upon a recapitulation of the several parts of the estimate, it appears that the cost of the graduation for the entire distance of 41 miles 1323 feet, or 41¼ miles, will be as follows:

	Distance.	Cost.
From the city boundary to the Susquehanna,	34.2485	$128,599 20
From the end of the 26th section to the Methodist Church in Port Deposit,	5.1880	31,390 00
City section,	.3847	2,757 75
Totals,	40.2932	$162,746 95
For superintendance and locating curves, add 10 per cent.,		16,274 69
		$179,021 64

From which, for the whole distance, including the length of the Susquehanna Bridge, 3671 feet, is deduced an average cost per mile of $4,339 91.

THE MASONRY.

The numerous small streams intersecting the line of the survey will be passed by rectangular culverts constructed in the most economical manner. With the exception of the tide rivers, there are but three streams requiring bridges, the principal branch of North-East creek, at Mrs. Stemmer's Mill, Swan creek, near the head of its tide, and Wilton Run, a considerable branch of the latter. These three bridges will consist of stone abutments, with superstructures of wood. The masonry they will require will be included in the statement I will proceed to give. The cost of the superstructures will be stated separately.

[The particulars of the quantity and cost of the culvert and bridge masonry upon each of the 26 sections are omitted, and the aggregates alone stated, as follows.]

The total number of perches upon the 26 sections, from Baltimore to the Susquehanna, is 7,302, the average estimated cost of which per perch is $4 27$\frac{3}{10}$, making the entire cost equal to $31,201.

The two small bridges over Stemmer's Run and Wilton Run, are allowed a space of 15 feet each, which, at the rate of $10 per running foot for their flooring, will make their cost $300. A space of 100 feet is proposed for the passage of Swan creek, by a frame upon the plan of Col. Long, costing $15 per foot linear; making the cost of the superstructure of this bridge $1500. Adding these items to the cost of the masonry, the result will be thus, for the 26 sections:

Total cost of culvert and bridge masonry,	$31,201 00	
Wooden superstructures for three bridges,	1,800 00	
		$33,001 00

For the part of the route along the Susquehanna, the masonry required will be nearly thus:

18 culverts at an average of $100 each,	1,800 00
Bridge over Steele's Run, at junction with Oxford Railroad,	300 00
	$35,101 00
Add 10 per cent. for contingencies and superintendance,	3,510 10
Entire cost of masonry upon 41¼ miles, being $936 03 per mile.	$38,611 10

In estimating the quantity of the masonry, I have allowed large vents for all the streams crossed by the route. It may, in the construction of the road, be safely practicable to reduce the size of many of the culverts, and in no case do I think an increase in their dimensions will be required. I have been aided, in fixing their cost per perch, by a knowledge of the contract prices for similar structures upon the lateral railroad to Washington, which passes through a country affording about the same facilities for procuring materials as those which exist upon the route to Port Deposit, excepting the portion of it along the Susquehanna, where stone may be procured immediately on the line at the least possible expense.

THE PILE BRIDGES.

In order to effect, at a reasonable expense, the passage of the wide inlets of the Chesapeake bay, which are crossed by the route, it is obvious that the above description of bridge must be resorted to, being manifestly cheaper in its construction than any other structure of wood, stone, or other material that could be devised. The great width of the Gunpowder and Bush rivers would preclude the employment of any mode of crossing them, other than an economical one. This species of bridge, in its simplest and cheapest form, consists of a succession of rows of piles supporting the roadway, each row containing only a sufficient number to sustain the vertical pressure of the flooring and its load. Where the structure is not subjected to shocks from ice or drift wood, the rapid current or violent agitation of the water, this form has sufficient solidity But it would not be proper to leave the bridges which it is proposed to throw over the rivers in question unfortified by precautions against the shocks just described, which, in the Gun.. powder particularly, will at times take place, especially at the breaking up of the winter, when considerable bodies of ice and timber urge their way outwards to the bay. I have therefore provided, in the design which I submit, for the security of the bridges against accidents, even at the expense of a considerable augmentation in their cost. The details of the estimate of this part of the work are as follows. The rows of piles are supposed to be driven at intervals of 12 feet. The cost of that number of feet in length of the proposed bridge is therefore exhibited.

1 cap piece, 22 feet long, 10 by 12,	$2 64
4 pieces scantling, 5 by 52, 48 feet linear,	3 60
2 joists, 3 by 12, 24 do.,	86
Bracing for piles, 4 by 8, 60 do.,	1 92
Two-inch plank for flooring, 576 feet board measure,	5 76
Hand railing, 100 feet do.,	1 00
Horizontal timbers bolted to piles at low water mark,	2 70
10 iron bolts, ⅝ inch square, averaging 3 lbs. each, at 7¼ cents,	2 17
18 lbs. spikes and nails, at 6 cents,	1 08
6 piles averaging 30 feet long each, 180 feet run, at 7 cents,	12 60
Driving piles, at $1 50 each,	9 00
Workmanship to superstructure exclusive of the railway,	12 00
Cost of 12 feet in length of the bridge, being $4 61 per foot.	$55 33

When the location shall have been established upon the most favorable line, the lengths of the several pile bridges will be thus:

Back river, - - - - -	900 feet
Gunpowder, - - - - -	5,300 "
Bush river, - - - - -	3,800 "
Aggregate length of pile bridges,	10,000 feet
which, at $4 61 per foot linear, will show their entire cost to be - - -	$46,100
Adding 10 per cent. for contingencies and superintendance, - -	4,610
	$50,710

For this sum it is believed that a stability may be given to these bridges which will secure them from those accidents against which it is of such great importance to guard them, as their destruction or serious injury by ice or drift wood, by breaking the continuity of the railway, which they contribute to support, would stop the transit upon the entire line.

THE RAILWAY.

In the construction of the first track, I would recommend the adoption of the cheapest plan upon which a railway could be built sufficiently firm to withstand the action of the probable transportation over it for 5 or 6 years after its completion. Within this time, by the aid of the first, a second track may be laid down of a more permanent and perfect description. In this way the immediate outlay upon the work would be made as small as possible; and opportunity be afforded to test the value of the projected road as an investment of capital, to construct the second track in the most economical manner, and to apply to it any improvements in the form of railways, which may, in the mean time, be discovered. In the folowing estimate I have pursued the principles just expressed. It is proposed to obtain the timber of which the railway will be constructed, from the country adjacent to the line of the road, and no difficulty in procuring the required quantity is anticipated. The railway will consist of oak logs of dimensions confined within certain limits, supported by sleepers eight feet apart; the sleepers and intermediate parts of the logs resting upon the earth; the iron rail bearing upon the longitudinal sills properly hewn for the purpose.

ESTIMATE.

11,000 feet linear of oak sills, hewn upon the upper and under sides, delivered on the road at 7 cents per foot, - - - - - - -	$770
675 oak sleepers delivered in a rough state upon the road, at 30 cents each, - - - - -	203 50
760 plates for the joinings of the rails, at $33 92 per thousand, -	25 78
1,000 lbs. 4½ inch spikes, at 9¼ cents per lb. - - - - -	92 50
Small nails for plates, - - -	3 58
Transportation of 23 tons iron, by water and land, at $3 per ton, -	69 00
Workmanship of a mile of single track, - - - - -	750 00
Dressing off the road bed and opening drains, - - - -	50 00
Local superintendance in pay of contractor, - - - - -	100 00
Contingencies 7 per cent., $144 44— superintendance 5 per cent. $103 17	247 61
$22\frac{37}{100}$ tons bar-iron rails, 2¼ inches broad, ⅝ inch thick, at $45 per ton,	1,006 65
Cost per mile of single track,	$3,317 62

For the entire distance of 41¼ miles the cost of a single track will therefore amount to $136,851 82.

Allowing for the above distance of single track 3¾ miles of a second track, laid down at the same time with the first, and to be used for the accommodation of trains passing each other, or stationary at depots, and for the reception of cars employed in repairs, we have a length of 45 miles of single track, which, at the above rate per mile, will cost - $149,292 90

Allowing 25 turnouts for the whole length of the line, at $110 each,	2,750 00
Entire cost of 45 miles of single railway, - - - -	$152,042 90

RECAPITULATION.

The several items of the foregoing estimate being brought together, present the following result as the entire cost of the work:

Graduation with 10 per cent. added for contingencies, - -	$179,021 64
Masonry with do. do. - -	38,611 10
Pile bridging with do. do. -	50,710 00
Railway and contingencies, -	152,042 90
	$420,385 64

Being for the distance of 41¼ miles, at the rate of $10, 191 17 per mile.

In addition to this sum to be expended in the construction of the road, a further outlay for putting it into operation will be required immediately after its completion, which may be estimated nearly as follows:

4 locomotive engines with their tenders, at $4,000 each, - - -	$16,000
10 passenger coaches, at $600 each,	6,000
50 transportation cars, at $150 each,	7,500
Depots, water stations, car houses, &c., cheaply built, say, - -	5,000
	$34,500

With this addition to the cost of constructing the road, the capital to be expended before any of the advantages of the project can be realized, will be $454,885 64.

The business of the road could indeed be commenced with a rather less costly establishment than the one above estimated: but if the anticipated success attend the work, the sum of $35,000, at least, must be laid out within the first year from its completion, and may therefore be regarded as a present expenditure.

CONCLUDING REMARKS.

Having gone through the preceding details, I respectfully submit their results to you with a few further observations. The encouragement to the prosecution of this work is undoubtedly great. As its projectors, you are well acquainted with the advantages in point of trade and travelling which it will be likely to secure, whether as a part of the great inland thoroughfare from north to south, or in its connection with the valley of the Susquehanna. A work holding out such prospects of profit to its proprietors would justify a large expenditure in its construction. Its estimated cost must, however, be admitted to be moderate, when compared with that of a majority of the railroads hitherto constructed; for when completed, with a second track, its cost will not probably exceed $15,000 per mile. The annual charge for repairs to the graduation must also be small, on account of the inconsiderable depth of the excavations and embankments, which, neither by slips or settlements, will give rise to expense in their removal or supply, or interruption to the use of the road. And yet, this economy in the first cost and subsequent repairs is consistent with the employment of ascents and curvatures of as favorable a character in respect to the moving power and speed of transit, as those which are used upon the Lateral Railroad to Washington, and the advantages of which upon that road have only been obtained by a most costly graduation. It should be a subject of particular congratulation to this Company, that they are enabled to impart to their work those valuable characteristics of gentle ascents and curvatures, inasmuch as by means of them they can compete upon more equal terms with the water carriage from the Susquehanna, and transport the United States' mail with a rapidity as great as that with which it will be conveyed upon the Washington Railway.

In concluding this report, it is with much pleasure that I acknowledge the value of the aid I have received in the survey upon which it is founded from Messrs. H. R. Hazlehurst, Hopewell Dorsey, and James Murray, who executed the field and office duties under my direction. By their industrious and well directed efforts, the surveys were completed in about seven weeks after their commencement, although conducted in mid-winter, and for a part of the time during the prevalence of very inclement weather. The aggregate length of the lines run was about 50 miles, 7 of which were traced with the precision and care of a definitive location. From the experimental survey previously executed by Messrs. Poppleton, Dawson, and Isaac Knight, as far as the Gunpowder River, I derived assistance in conducting the line to that point in the route, and the general map of the country between Baltimore and the Susquehanna, made in illustration of the reconnoissance of the Messrs Shrivers, also yielded me some useful information.

With great respect, I remain, gentlemen, your obedient servant,

BENJ. H. LATROBE.

DIVIDEND.—The Saratoga and Schenectady Railroad Company have declared a semi-annual dividend of four per cent., payable on the 22d inst.

The nett profits of the Liverpool and Manchester Rail Road for the six months ending 30th June, were 34,692*l*. The Directors have ordered a dividend for that period, £4 10s. per share.

Improved Method of Sheathing the Bottoms of Vessels.

To the Editor of the Mechanics' Magazine:

SIR,—Having in a late communication described an apparatus for raising vessels for the purpose of repair, I shall now propose an improved method of sheathing the bottoms of vessels, as follows: Long plates of copper, or other metal, are cut to a breadth and shape nearly corresponding with those of the planks over which the sheathing is to be laid; and these plates are so placed on the planks that the edges of each plate shall lie between the seams of the planks. Each plate is first tacked to the bottom with small tacks or nails, merely sufficient to sustain it, till two or more plates are placed side by side, the edges of each two plates being nearly one fourth of an inch apart; then a flat rod of copper or brass, about five eighths of an inch wide, and one eighth of an inch thick, having counter-sunk screw holes through it at every two or three inches of its length, is placed over the seam formed by the edges of each two plates, and is fastened with wood screws, or nails with heads similar to those of wood screws, that when driven the heads may be even with the surface of the metallic rod. The plates and rods should be as long as the vessel to which they are applied; but when this is not practicable, the ends of each piece must be chamfered so that the end of one piece may extend a little over that of another, without occasioning any projection or unevenness in the surface. The principal object of the improvement is to facilitate the speed of vessels, particularly steamboats. For this purpose, plates of an alloy, composed of tin and lead, equal quantities, are decidedly preferable to those of copper.

I claim as original the method of fastening long plates of sheathing by means of rods, as above described.

R. PORTER.

Billerica, Aug. 12, 1834.

Animal Mechanics, or Proofs of Design in the Animal Frame. Part II., showing the Application of the Living Forces. [From the Library of Useful Knowledge.]

(Continued from page 487.)

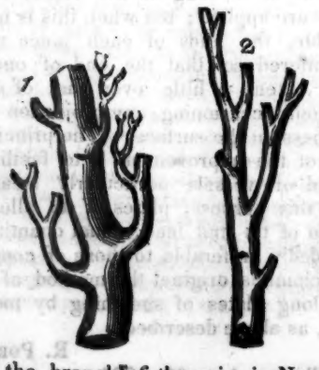
With these facts before us, we turn with interest to what the anatomist too often contemplates with unconcern: we mean the different curves in the branching of the arteries and veins; for by this law of hydraulics the junction of the branches and trunks of the arteries and veins ought to be different, as the one vessel, the artery, carries the blood out from the heart, that is, from trunk to branch; and the other vessel, the vein, carries it in the opposite direction towards the heart, or from branch to trunk.

And, in matter of fact, their branchings are very different, and characteristic of the vessels. We have heard a teacher of anatomy express himself in this manner: "The arteries are active and powerful vessels, which carry the arterial blood out from the heart; and they receive the forcible impetus of the heart. When they are wounded, the man bleeds to death; therefore, nature conveys these vessels into the recesses of the body, taking advantage of every protecting bone—conveying them so that the bones and the muscles protect them. There are no irregularities in their course, and their branches go off at a determined angle, and never irregular; but the veins," he would continue, "are vessels of less importance: they convey the blood back to the heart, with a languid motion, and if they are wounded the blood flows with so diminished a force that you can stop it with the pressure of your finger; accordingly, nature is more negligent of them: they run in all their courses irregularly—some deep, some superficially; and their branches join their trunks with awkward irregular curves and elbows."

This is in good feeling and is in part true; but it contains somewhat of the error which runs through most anatomical discourses, of supposing things are irregular, as if the objects in view were inartificially and imperfectly attained. From inattention to the hydraulic principle, he seems not to have considered that the connection of trunk and branch must vary according to the direction of the stream—that the direction of the branch, which is adapted to lead the stream from the trunk into the branch, must be altered when the design is to convey the fluid from the branch into the trunk.

The reader will now understand, that the branch of the artery (fig. 18, No. 1,) gently diverges from the direction of the stream,

Fig. 18.

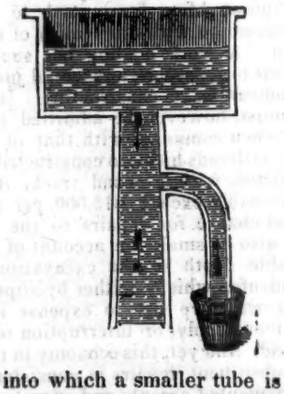


while the branch of the vein, in No. 2, enters abruptly and at right angles. We may illustrate this, by observing, that if we could suppose the vein substituted for the artery, and the artery for the vein—if the vein carried the blood outwards, instead of towards the heart, and the artery conveyed the blood back to the heart,—the blood could not run in the circle; it would be retarded, and congestion would take place, somewhere in its course.

We have seen by the demonstration above, that if the veins of the human body were rigid tubes, and if a hole were made in their sides, air might be drawn in instead of the blood flowing out. This is a matter of vital consequence, for if a very little air be blown into the veins of an animal it dies in an instant, and there is no suffering, nor struggle, nor any stage of transition, so immediately does the stillness of death take possession of every part of the frame.

In conversation with Napoleon's celebrated surgeon, Baron Larrey, on the case of a young man wounded in the neck, he said he had no hesitation in declaring the cause of death to be air drawn in by the veins of the neck, and he quoted instances occurring at the battle of Wagram. These circumstances greatly increase the interest of an experiment made by Dr. Barry, who found that on introducing a tube into the vein of the neck, and placing the other end of the tube in a vessel of water, the water rose during inspiration. The difficulty of explaining this arises from those veins being membraneous tubes, and consequently compressible; but in the act of inspiration, not only are the ribs and breast bone raised, but the muscles of the neck attached to the collar bone rise from the veins of the neck. By this means, instead of suffering the compression of the incumbent parts, the atmospheric pressure is taken off the veins; they are brought to the condition of rigid tubes; and the principles of hydraulics explain the rest. Thus, fig. 19 is a reservoir emptied by a perpendicu-

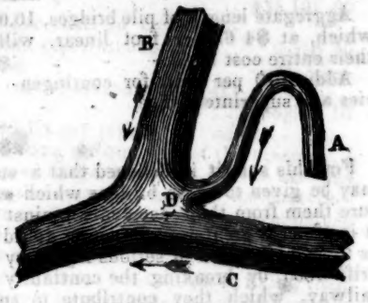
Fig. 19.



lar tube, into which a smaller tube is inserted. The water descending by the larger tube will draw the water up through the lesser tube, so as to empty the glass, in which its lower end is immersed.

We shall here give an example of the manner in which the trunk of the absorbent system joins the venous system, a circumstance which has not escaped the notice of anatomists. The absorbing or lymphatic system consists of a set of vessels different from arteries and veins, which imbibe by a sort of capillary attraction at their extremities, and convey their fluids towards the centre, without any such impulse as the proper blood vessels receive from the heart. The stream in the trunk of this vessel has no force to impel it into the stream of blood in the veins; it enters, therefore, in this manner.

Fig. 20.



A is the trunk of this system, called the thoracic duct; B is the great jugular vein descending from the head; and C, the great vein coming from the arm. These veins join at an angle, and the streams from them, in the direction of the arrows, leave a point between them at D, where there is no pressure. If two tubes enter into a larger tube obliquely, and the water be flowing from the lesser tubes into the greater one, and if a hole be bored at the angle of their union, the water will not escape at that hole. Therefore, the fluid from the thoracic tube A meets with no impediment at the point D; when entered, we have seen, by a former diagram, how the attraction of the more forcible stream will draw the contiguous fluid after it. By this contrivance, if we may use the word, the fluid in the absorbing system finds access to the red blood, and is carried into the heart. We might continue this subject by considering the influence of respiration on the circulation; but we shall pursue the inquiry into the hydraulic principles, as applicable to the circulation, independently of pneumatics.

The law of inertia, which is of easy comprehension as it regards solids, is also applicable to fluids; it is easier to keep a column of water in a pipe in motion than to put it into motion from a state of rest.

In a forcing pump, when after each movement of the piston the columns of water become stationary, power is unnecessarily lost by bringing the column of water, which is in this state of rest, again into motion; but if a second blow of the engine be given to the column of water whilst it is yet moving, it is found to be more easily pressed forward, and no part of the force is lost in urging it from a state of rest into motion. This is evinced in the contrivances of the engineer. He employs two forcing pumps instead of one, and he so applies his lever as to operate alternately on the one and the other; to the end that the water in the pipe may be kept in uninterrupted motion. Let us apply this principle to the circulation of the blood.

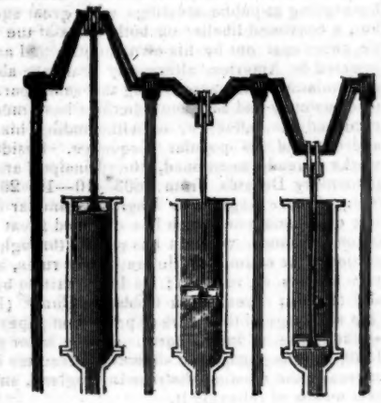
If the heart were the only power forcing on the blood, there would be a cessation of motion after each pulse of the heart, and therefore a great part of its power would be lost. This explains why there is a power in the artery as well as in the heart. The artery being muscular seconds the operations of the heart; its muscularity, and the muscularity of the heart, are powers exercised alternately, and which, acting like the double stroke of the engine, permit no interval to the motion of the column of blood. If the heart had to act upon a column of blood

at rest, not only much of its force would be unnecessarily exhausted, but it would be excited to propel an inert body, and a dangerous shock would arise from the resistance.

If we pursue this subject, and inquire what is essential to such a hydraulic machine as we are contemplating, we shall perceive that the engineer meets with a difficulty in adjusting the powers of his two pumps, and finds an interval, or pause, in the application of their forces.

To obviate this, he makes three cylinders, the pistons of which are moved by a crank,

Fig. 21.

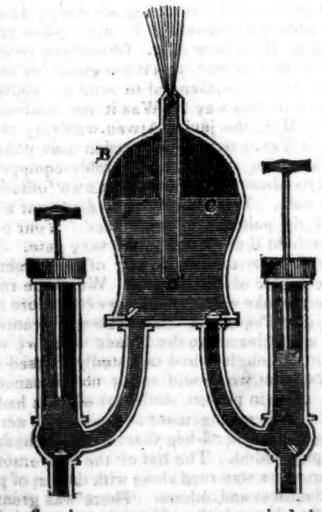


which so orders the descent of the pistons as to fill up this interval, so that one of the pistons shall be always descending; and these pumps propelling the water into a common tube, there is no interval to the motion of the fluid through it.

By this example we are led to look for something corresponding in the machinery of the circulation. We find no third active power, however; yet we find a quality in the blood vessels which answers the purpose much better. But to comprehend this, we must observe that the engineer has a more admirable contrivance than this of a third pump to adjust the action of the other two.

He confines a body of air, which, by its elasticity, performs the office. The pipes

Fig. 22.



of two forcing pumps are carried into the reservoir, B; they convey the water up to C, by which time the air is compressed, and its elasticity thereby increased. That elasticity is exerted without interval, and, acting on the water, C, propels it into the tube, D, uninterruptedly.

Just such an elastic property is possessed by the arteries. The great artery which goes out from the heart, as we have had repeated occasion to observe, makes a sweeping curve; it is capacious, and is the most perfectly elastic of any thing in nature. Here then we have the three powers which the engineer finds necessary to employ. We have the alternate action of the heart and the artery, and we have an elasticity, which, though passive, is essential, both to the uniform flow of the blood, by filling up the interval in the action of the two powers, and to the safety of the engine itself; for without this elasticity, there would be such a jar as must speedily destroy the mechanism.*

There is nothing more admirable than the influence of this elastic power; it is greatest in the coats of the artery near the heart, weaker in the coats of that artery as it recedes from the heart: this very evidently declares its use, but we shall take a more sufficient proof, although an unhappy one.

As life advances, the arterial system loses much of its elasticity, and becomes rigid. This is so common an occurrence that we can no more call it a disease than the stiffened joints of an old man: it is the forerunner or the accompaniment of the decline of life. But this sometimes takes place too early in life, and to an extreme degree; and from its effects we must call it morbid, for it not unfrequently happens that the muscular power of the heart being still entire and vigorous, the arteries can no longer sustain it. They are not now endowed with that power which, yielding to the heart's action, resists, and recoils the more it yields,—which takes off all sudden shock, and which in yielding wastes no power, since on its recoil it gives as much force to the acceleration of the blood as was lost of the heart's action. The artery then, becoming rigid, yields indeed to the heart's impulse, but has no recoil. It is permanently dilated or enlarged. It is now called aneurismal. A stronger impulse from the heart, excited by inordinate action or passion, chips and bursts the now rigid coats of the artery. If the breach be sudden, it is death; if it be gradual, a pouch forms—a true aneurism. And now we have the proof we require: for this bag coming to press upon the solid bones, they are destroyed. That action of the heart which was so lightly and so easily borne whilst the vessels were elastic, now beating upon a solid structure, in a short time destroys it. Thus we are led to a more accurate knowledge of the fine adjustment of the active and resisting properties in the circulating vessels during youth and health, by what takes place on a very slight derangement of those powers.

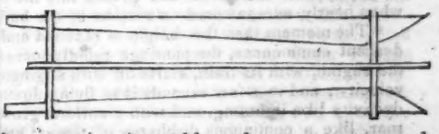
* But does the blood flow uniformly? Not precisely so in the arteries, since the stroke of the heart is more powerful, or rather more concentrated, than that of the arteries. During the contraction of the ventricle of the heart, the artery is dilated, but it is never emptied; and the flow of the blood forwards in the course of the circulation is not for an instant interrupted.

REMEDY FOR DRY ROT.—The London Literary Gazette, of June 14, contains a sketch of a lecture upon Dry Rot, delivered by Mr. Faraday at the Royal Institution, from which we learn that a complete remedy has been discovered by a Mr. Kyan, who submitted his proposition to the Lords of the Admiralty, who have caused it to be proved and have advised him to take out a patent for it. The process is as follows: The timber is immersed in a solution of the corrosive sublimate, which is pumped into a tank, in which the timber is held down by a transverse beam, so as to prevent its floating, and after submersion for a week the operation is completed.

It has already been adopted with the timber used in the National Gallery, the new works at the British Museum, the warehouses of the East India Company, by various churches and other public buildings; and many engineers connected with the Liverpool, Manchester, Stanhope, Tyne, and Wear railways, are using timber thus prepared, in lieu of stone sleepers. It is also extensively introduced in the ship yards of England, and many gentlemen have adopted it in their domestic architecture.—[Nat. Gaz.]

Twin-Passage Boat for Canals. [From the London Mechanics' Magazine.]

SIR,—It occurred to me when I was writing the concluding paragraph of my last letter to you, that twin passage-boats having the form shown in the annexed sketch, (which



is a top view,) would send no waves towards the banks, and might be used to advantage on canals that had no stone facing along the sides. The two outside surfaces of the boats are straight and parallel in the direction of their length, but may be curved like any other boat, from the top edge downwards, and the two interior sides must have the gig-shape as nearly as possible. The two cross-pieces connect the boats, and the tow-line is fixed to the part running up the centre. Any wave that is formed between the boats will settle at the stern, and act in the same way as the wave in the case of the Paisley canal passage-boats; and the parallel outside surfaces of the boats can raise no wave. I made a model five feet long, with the other dimensions in proportion, to try its effect, and when it was drawn through the water at the best velocity, the water all around was *perfectly* smooth, although there was a large wave formed between the boats. The wave commenced a little behind the bow, and it was level with the surface of the canal before it reached the stern; if the curved sides of the boats had been out, this wave would have been driven to the banks of the canal.

As twin boats are not likely to upset, they may be built very narrow, and not take up much room in the breadth of the canal, if their draft of water is increased. Part o the deck that holds the boats together, may be formed into seats, and all the passengers may sit with their feet down into the boats, and their faces towards the banks of the canal. The centre part of the deck may be used for walking upon, as the passengers, when standing on it, will be high enough to see over the awnings that cover the cabins. At places where the deck, for the sake of binding the boats more firmly together, must stretch from outside to outside, doors may be left from the deck to the cabins. As no waves *leave* a boat of this sort, it certainly must take less power to work it, on which account I think the principle may be applied to little sailing craft, such as pleasure boats. The waves that are formed by

the *paddle* of a twin steamboat might be got quit of by forming the stern properly. In my model, the outsides were plain and parallel in the up and down, as well as in the length direction. I am, sir, yours truly,

JAMES WHITELAW

Glasgow, April 18, 1834.

RAILROAD TRAVELLING IN ENGLAND.—"Although the whole passage between Liverpool and Manchester is a series of enchantments, surpassing any in the *Arabian Nights*, because they are realities, not fictions, yet there are certain epochs in the transit which are peculiarly exciting. These are the startings, the ascents, the decents, the tunnels, the Chat Moss, the meetings. At the instant of starting, or rather before, the automaton belches forth an explosion of steam, and seems, for a second or two, quiescent. But quickly the explosions are reiterated, with shorter and shorter intervals, till they become too rapid to be counted, though still distinct. These belchings or explosions more nearly resemble the pantings of a lion or tiger, than any sound that has ever vibrated on my ear. During the ascent they became slower and slower, till the automaton actually labors like an animal out of breath, from the tremendous efforts to gain the highest points of elevation. The progression is proportionate; and before the said point is gained, the train is not moving faster than a horse can pace. With the slow motion of the mighty and animated machine, and the breathing becomes more laborious, the growl more distinct, till, at length, the animal appears exhausted, and groans like the tiger when nearly overpowered in combat by the buffalo.

"The moment that the height is reached and the descent commences, the pantings rapidly increase; the engine, with its train, starts off with augmenting velocity; and in a few seconds it is flying down the declivity like lightning, and with a uniform growl or roar, like a continuous discharge of distant artillery. At this period, the whole train is going at the rate of thirty five or forty miles an hour! I was on the outside, and in front of the first carriage, just over the engine. The scene was magnificent, I had almost said terrific. Although it was a dead calm, the wind appeared to be blowing a hurricane, such was the velocity with which we darted through the air. Yet all was steady; and there was something in the precision of the machinery that inspired a degree of confidence over fear—of safety over danger. A man may travel from the Pole to the Equator, from the Straits of Mallacca to the Isthmus of Darien, and he will see nothing so astonishing as this. The pangs of Etna and Vesuvius excite feelings of horror as well as of terror; the convulsion of the elements during a thunder storm carries with it nothing but pride, much less of pleasure, to counteract the awe inspired by the fearful workings of perturbed nature; but the scene which is here presented, and which I cannot adequately describe, engenders a proud consciousness of superiority in human ingenuity, more intense and convincing than any effort or product of the poet, the painter, the philosopher, or the divine. The projections or transits of the train through the tunnels or arches, are very electrifying. The deafening peal of thunder, the sudden immersion in gloom, and the clash of reverberated sounds in confined space, combine to produce a momentary shudder or idea of destruction—a thrill of annihilation, which is instantly dispelled on emerging into the cheerful light.

"The meetings or crossings of the steam trains flying in opposite directions are scarcely less agitating to the nerves, than their transits through the tunnels. The velocity of their course, the propinquity or apparent identity of the iron orbits along which these meteors move, call forth the involuntary but fearful thought of a possible collision, with all its horrible consequences. The period of suspense, however, though exquisitely painful, is but momentary; and in a few seconds the object of terror is far out of sight behind.

"Nor is the rapid passage across the Chat Moss unworthy of notice. The ingenuity with which two narrow rods of iron are made to bear whole trains of wagons, laden with many hundred tons of commerce, and bounding across a wide, semi-fluid morass, previously impassable by man or beast, is beyond all praise, and deserving of eternal record. Only conceive a slender bridge of two minute iron rails, several miles in length, level as Waterloo, elastic as whalebone, yet firm as adamant! Along this splendid triumph of human genius—this veritable *via triumphalis*—the train of carriages bounds with the velocity of the stricken deer; the vibrations of the resilient moss causing the ponderous engine and its enormous suite to glide along the surface of an extensive quagmire as safely as a practised skater skims the icy mirror of a frozen lake.

"The first class or train is the most fashionable, but the second and third are the most amusing. I travelled one day from Liverpool to Manchester in the lumber train. Many of the carriages were occupied by the swinish multitude, and others by a multitude of swine. These last were 'neat as imported' from the Emerald Isle, and therefore were naturally vociferous, if not eloquent. It was evident that the other passengers would have been considerably annoyed by the orators of this last group, had there not been stationed in each carriage an officer somewhat analogous to the Usher of the Black Rod, but whose designation on the railroad I found to be 'Comptroller of the Gammon.' No sooner did one of the long-faced gentleman raise his note too high, or wag his jaw too long, than the 'Comptroller of the Gammon' gave him a whack over the snout with the but-end of his shillelagh; a snubber which never failed to stop his oratory for the remainder of the journey."

[*From the Glasgow Courier*]

STEAM CARRIAGES ON PUBLIC ROADS.—Since our last notice, these vehicles have continued to perform their trips, with increasing success, between Glasgow and Paisley. Although the roads still remain in a much worse condition than is usual at this season of the year, and, although the broken stones laid on them by the Trustees had done considerable damage to the machines, these obstacles have been entirely overcome, and the carriages are daily crowded with passengers. As an indication of the perfect confidence placed in the vehicles, we may observe that several parties of ladies and gentlemen have made excursions to Paisley, and returned with them as a pleasure trip. The following is the running of morning trips on the six last days, the time being reckoned between Tradeston, Glasgow, and the Tontine, Paisley:—Thursday, 17th July, ten o'clock coach to Paisley, 40 minutes; Friday, 18th July, 44 minutes; Saturday, 19th July, 35 minutes; Monday, 21st July, 50 minutes; Tuesday, 22d July, 50 minutes; Wednesday, 23d July, 35 minutes. We have only further to remark, that the carriage which left Glasgow yesterday, at 12 o'clock, did the distance, from the Half-way house to Paisley, fully 3 1 2 miles, in ten minutes, being at the rate of upwards of 21 miles an hour! And that, on the two last trips on Saturday, the anxiety to get places was so great, that the carriage to Paisley took out 28 passengers, and returned with 39!

WM. COBBETT.—At the suggestion of a correspondent, we copy from the *Encyclopædia Americana*, a biographical notice of this individual.

COBBETT, William, a notorious political writer in England and America, was born in 1766, in the county of Surry, England, the son of a farmer, from whom he received the rudiments of his education—reading, writing and arithmetic. In 1783, he left the plough for London, where he became "an understrapping quill-driver," as he calls himself, to an attorney in Gray's Inn. This employment not suiting his restless disposition, he enlisted as a common soldier in 1784, and remained in England a year, spending his leisure hours in reading and study, particularly in the study of grammar. He wrote out the whole of Lowth's grammar two or three times, got it by heart, and repeated it every morning and evening. He then sailed to join his regiment in America, and remained there, in Nova Scotia and New Brunswick, till 1791, when the regiment was relieved and sent home.—Serjeant-major Cobbett here left the service, and terminated his military career. In 1792, he first came to the United States, after a short visit to France.—He began his career in Philadelphia, as a writer of political pamphlets, under the well known name of *Peter Porcupine;* soon after engaged in the business of a bookseller in that city, and published, at the same time, a daily newspaper, called the *Porcupine*. The French interest, which then prevailed in the United States, he opposed with great violence, mingling the coarsest personal abuse with the severest political invective. Having been convicted for a libel on Doctor Rush, and condemned in $5000 damages, he left the country, and returned to England in 1800. Here he published the Works of Peter Porcupine, containing a faithful Pictures of the United States, &c. (London, 1801, 12 vols, 8vo.), consisting of selections from the *Porcupine*, with remarks illustrating them, and of his other personal and political writings, previously published in America.—This work was dedicated "to a declared enemy of republicans and levellers." In it Doctor Priestley (*Observations of Priestley's Emigration*), Doctor Rush (in the *Rush-Light*), Doctor Franklin, &c., were unsparingly abused. He soon after established the Weekly Political Register (commenced in 1802), which has been conducted with considerable talent, but great bitterness. In 1810, he was convicted of a libel with intention to excite a mutiny, and condemned to confinement in Newgate, and to pay a fine of £1000. Although the fine was paid by subscription among his friends, he addressed a letter to the king in 1828, praying his majesty to restore him the sum. In 1815, he became the champion of Napoleon, whom he had assailed with the utmost vehemence. In 1817, he again visited America; but we soon after find him in England, where, in 1819, he published his Year's residence in America. He was never naturalized in the United States, objecting to the oath required, abjuring all allegiance to any other power. He now connected himself with the party called *radicals;* and we often find him haranguing at public meetings with great success; but, a convicted libeller on both sides of the Atlantic, twice cast out by his own country, and as often rejected by America, alternately praising, abusing, calumniating and panegyrizing the same party, his inconsistency and self-contradictions have much diminished his influence, notwithstanding his great address and his popular eloquence. Besides his works already mentioned, the principal are Parliamentary Debates, from 1803—10—11, 20 vols. 8vo.; *Maitre Anglais*, or English Grammar for the Use of Frenchmen, which has obtained great reputation in France, where it has passed through many editions (the examples, illustrating the rules, are severe attacks on royalty); his Life, written by himself (1816); Treatise on Cobbett's Corn* (1828); (the title-page of this work is printed on paper made of the husks of Indian corn). In the latter part of 1829, he was engaged in delivering lectures on the causes of the existing distress in England, and the best means of relieving it.

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* By this term this modest gentleman designates Indian corn or maize, the cultivation of which he has been endeavoring to introduce among his countrymen.

[*From Crawford's Mission to Ava.*]

"The circumstances which attended our introduction to his Majesty, appeared to call for a distinct remonstrance; and in conformity with what I had intimated to the Burmese chiefs at the opening of the conference, I addressed them in the following terms, through Mr. Judson. My notes were prepared during the intervals of the conference, and handed over to the interpreter, who had time to translate and consider them before he spoke. The language, as it now stands, is nearly a literal translation of what he delivered in Burman.

E. "The principal business of this day's conference being over, I take this opportunity of addressing you respecting some circumstances of an unpleasant nature which occurred yesterday. This embassy, you are aware, came to the Burman Court from a great government exercising sovereign authority.—The presents which we brought were offered as marks of friendship only. When you recollect the issue of the late war, was it not generous on the part of the Governor-General to send an embassy and presents in this way? Was it not conferring a favor? (Here the junior Atwen-wun very readily replied, 'Yes, yes.) The mission was conveyed to the Palace on elephants miserably equipped, compared to those on which your own officers of all ranks rode. We were made to dismount at the corner of the palisade of the Palace. Your own officers rode in their litters to the very gate. Your officers of every rank made use of their umbrellas to the very gate of the Palace. We were rudely requested to take ours down, long even before reaching the Rung-d'hau. A Sare-d'haugyi wanted us to make an obeisance to the Palace when we were not near it, although I had repeatedly caused it to be signified that we should make no obeisance except to the King in person, and your officers had acquiesced in this arrangement: this was an act of gratuitous rudeness. I beg that the Saré-d'haugyi may be reprimanded. The list of the Governor-General's presents was read along with the list of presents from Saubwas and others. There was great impropriety in this, which cannot escape yourselves. I mention all these matters, that they may never happen again. I am convinced they were unknown to his Majesty, or they would not have occurred now."

B. "It is the uniform custom of the country, in the case of embassies from China, Cochin-China, and Siam, that the ambassador dismount at the corner of the palisade. All these points of etiquette are settled by the King's order. There was no intentional disrespect in the present case. All the Government officers desired to treat the Ambassadors handsomely. So far as the Saré-d'haugyi has behaved improperly and disrespectfully, it is his own affair, and we will take measures for seeing him punished."

* * * * * *

"Many questions were put to us respecting our reception at the Court, and the things we had seen. They knew that I had visited the Court of Siam, and a great object with them was to obtain a favorable answer to the comparison which I should draw between that and the Burman Court. No essential point connected with the wealth or strength of the two nations was at all touched upon. The principal topics were the comparative splendor of the two palaces, of the court, of the courtiers, and of the King. They were especially desirous to know, whether the King of Siam had or had not a white elephant. On the first-mentioned topics they received such replies as gratified them; but on the important subject of the white elephant, it seemed, under all circumstances, not necessary to withhold the truth from them. They were sensibly mortified when I informed them, that the King of Siam had six white elephants instead of one, and that I had actually seen four of them. They asked, whether the Siamese elephants were equally white with that which I had seen yesterday. I replied that the Siamese elephants were all whiter. They seemed to doubt the accuracy of my information, and began a sort of cross-questioning. They begged to know when I had visited Siam; who was King at the time; his age; his successor, &c. &c. I satisfied them with precise dates and circumstances. They dropped the subject, and their silence evidently implied that they were chagrined that every circumstance of the parallel drawn between themselves and the Siamese should not have received a flattering answer."

It has been already intimated that the Burmese nobles were rather intent upon trifles; but, with the weakness, they had the penetration of children. Of this, the basis on which the parties were to treat, or the duties of an Ambassador, may afford a specimen:

"The Envoy Crawford is a distinguished, wise, and prudent man, selected by the English ruler. He has come to the royal country in the capacity of Ambassador. We also are persons trusted and favored by the Rising Sun Monarch; and we are selected and appointed by his Majesty to discuss whatever is to be discussed. The discussions relate not to the personal affairs of the Envoy Crawford, the affairs of his children, or of his wife. We also speak not of our personal affairs, the affairs of our children, or of our wives. It is *our* business to please the golden heart of the Rising Sun Monarch, and *his* to please the heart of the English ruler; and thus we are to have regard to the good of both parties. It is proper to bear in mind, that the way to preserve peace between the two great countries, is to keep in view the welfare of both countries and sovereigns, and so to manage the discussion, that there may be no excess, but straightness and right."

The childishness is not confined to the Ministers. An "exalted personage" is represented as far from being one whom "passion cannot shake," the effects are shown in no very dignified manner.

"On the 10th instant, a circumstance took place, which in almost any other country would have been very immaterial, but which was here attended with unpleasant consequences to the mission. His majesty, contrary to the custom of his predecessors, is frequently in the habit of going abroad with little pomp or ceremony. On the occasion now alluded to, he was amusing himself on the river side with an elephant fight. Four or five soldiers of the European escort happened about this time to cross the river, and passed by without noticing the King, or indeed being aware that he was present. This gave high offence. According to the Burmans, the soldiers ought to have squatted down, thrown off their shoes, and held up their hands in an attitude of supplication. I was immediately waited upon by the chiefs to remonstrate upon the conduct of the soldiers, which was represented by them to be such as would cost a Burman his head! I had the satisfaction to find, on inquiry, that the soldiers were not in the least to blame; and assured the chiefs, that had they been aware of his Majesty's presence, they would have conducted themselves with every possible respect towards him, and rendered him the same compliment as to their own sovereign. This assurance, however, fell far short of their expectations. I informed them, therefore, that the soldiers should not again be allowed to enter the town, to prevent the possibility of all misunderstanding on the subject. Independent of my assurance, however, they took effectual steps to prevent their doing so, by ordering the gates of the town to be closed whenever persons belonging to the Mission presented themselves. As an apology for this ungracious proceeding, the example of the Chinese Embassy was quoted; no individual belonging to which, it was stated, and I believe correctly, was ever allowed to enter the walls of Ava. The King was described to us as being in a high state of irritation—going about with a spear in his hand, as his custom on such occasions, and vowing destruction to his recreant Ministers, whom he charged with all kinds of offences. If I am rightly informed, his irritation arose from a different cause. Upon our first arrival, his Ministers appear to have deceived him with false hopes and expectations, by representing 'that the British Mission was sent by the Governor General to make submissions, and to atone for what had passed, by entering into arrangements for the restoration of the ceded provinces, and the remission of the debt due.' There was a necessity for undeceiving his Majesty at last; and his coming to a knowledge of the real facts was, in all probability, the true cause of the displeasure which his Ministers feigned to attribute to the pretended disrespect of the European soldiers. I should have mentioned also, that offence was taken at the conduct of some of our native followers, and especially of the Lascars, or native seamen of the steam-vessel. The charge against them also was want of due respect when the King presented himself. It was stated that they did not throw themselves, as they should have done, into a crouching attitude; but stood on tiptoe, and stared—far too curiously."

"The Ministers last night reported to the King the progress of the negotiation. His Majesty was highly indignant; said his confidence had been abused, and that now, for the first time, he was made acquainted with the real state of affairs. He accused the Ministers of falsehoods, malversations, and all kinds of offences. His displeasure did not end in mere words; he drew his dá, or sword, and sallied forth in pursuit of the offending courtiers. These took to immediate flight—some leaping over the balustrades which rail in the front of the Hall of Audience but the greater number escaping by the stair which leads to it; and in the confusion which attended their endeavors, tumbling head over heels, one on top of another. Such royal paroxysms are pretty frequent; and although attended with considerable sacrifices of the kingly dignity, are always bloodless. The late king was less subject to these fits of anger than his present majesty, but he also occasionally forgot himself. Towards the close of his reign, and when on a pilgrimage to the great temple of Mengwan, a circumstance of this description took place, which was described to me by an European gentleman, himself present, and one of the courtiers. The King had detected something flagitious, which would not have been very difficult. His anger rose; he seized his spear, and attacked the false Ministers.—These, with the exception of the European, who was not a party to the offence, fled tumultuously.—One hapless courtier had his heels tripped up in his flight; the King overtook him, and wounded him slightly in the calf of the leg with his spear, but took no further vengeance.

SIMEON SOUTH'S LETTERS TO HIS KINSFOLK.—The most entertaining chapters in the book, are those which show up the folly and stupidity of English visiters on the Continent, and the successful endeavors of the *chevaliers d'industrie* to cheat them of their money and daughters. The following extract contains nothing new, but describes the process just mentioned with spirit and truth. It can hardly be deemed an exaggerated picture of the extreme gullibility of our countrymen abroad; though it should be added that such occurrences are now more rare than formerly.—[London Spectator.]

John Bull is nowhere more foolish, more ridiculous, than when he is abroad. He and Mrs. Bull and their daughter Polly look up with so much adoration to, are so proud to be acquainted with, titled personages, and so vain of exhibiting the cards of Madame la Duchesse, M. le Marquis, &c. &c., that they are equally assiduous to form the acquaintance so eagerly wished for, but with more polished though more crooked address managed, by the intrigantes and the chevaliers. Mrs. Bull is enraptured with the condescensions of the former. Polly waltzes, and is in love with the latter. John does not like his daughter marrying a Frenchman; but Mamma would be so delighted to see Polly a duchess; and besides, Monsieur Count Shaddo is so handsome, and even so condescending as to eat his dinner at first once, and now seven times a week with the Bull family, that John, to be let alone, is at last obliged to yield to his wife's teazing and to Polly's sighs. He agrees to give the lovers a respectable sum on the wedding-day, as M. le Comte's father will give him nothing down; although the former is to inherit the estate and chateau in the South of France. The estate and the Count's father are always at a great distance from Paris. That both exist, all the intrigantes will swear. John is bamboozled; his wife is in ecstasies with the idea of her family being so soon allied to nobility, and the anticipated precedence and consequences she will have attained at the country balls. Polly, pretty Polly, is desperately, irrevocably gone in love! She is so happy; the Count says such delicious things to her; tells her she is an angel; sings divinely; plays on the piano with such admirable taste and execution; and Polly Bull promenades with dignity and ease; quadrilles with such admirable elegance, such natural grace; waltzes like a sylph; gallopades so *elasticly;* dresses so fashionably, yet so modestly; speaks French so purely,—so well that, but for her beauty, charms, and accomplishments, she might be taken for a Parisian. They marry; John comes down handsomely with drafts on his banker. He too is now delighted. His daughter has her cards printed "Madame la Comtesse Shaddo de Montpellier." Mrs. Bull is in raptures. John must be more generous—a few hundreds more. What a hard-hearted old skin-flint the Count's farther is; but what can be expected from a Carlist, whose son is a Liberal?—John Bull, too, is a Liberal; and must be delighted that his son-in-law is so; and more, Count Shaddo is a contributor to the *Journal des Debats,* the oracle of the Doctrinaires. Count Shaddo has exigencies: he whispers infusions to Polly, Poll hints the matter to her mother. Mrs. Bull to John: John begins to feel qualms of prudence, having already signed drafts to the amount of rather more than any previous year's expenditure. When John reflects, he becomes a rational animal,—discreet too. He says, "I must first talk over the matter with the Count:" he must have a *fair* statement of his affairs, dates, items, names, and totals. John now viewed the matter as he would his debtor at a meeting of creditors. Count Shoddo bows himself with the utmost *sang froid* into John's presence, commences with a flood of compliments, and politics. John stops him short by saying, "Count when I transact business, I come at once to the point. Mrs. Bull tells me, that Poll tells her that you want an advance—a credit. Now to the point: let me have a full and true statement of all your affairs, private and public, with vouchers for each item, and I will advance what appears reasonable and prudent. Until then, not one farthing shall I give; my mind is made up." John sat back in his chair: the Count began to compliment him. "I am very well, Count," said John, "I want only a satisfactory schedule of your affairs, with the vouchers: mind, that I never will admit an item, in matters of business, without *bonâ fide* vouchers. No compliments, Count, until you bring the schedule. No, no, no, I am John Bull, downright and upright, all the world over!" The Count bowed out of the salon. An acquaintance of three weeks with the Bull family supplied him with 66,000 francs, and with Polly—no bad game. But as John must be satisfied with more substantial matter than the cobwebbery of a chevalier d'industrie's politesse, Shaddo neglects Polly; she is miserable, and Ma intreats Pa to give the Count more money. "No, says John, "I never will give Poll's husband a premium to live with her. She took him for better and for worse; and I have just learned from my banker, in Rue Lafitte—whom, if I were not a calf, instead of what I ought to be, a Bull, I should have consulted before I consented to Poll's marriage—that her ignoble husband (Pull screeches) is not Count Shaddo, the son of the Marquis de Shaddo de Montpelier, but plain Mr. Shadow, chevalier d'industrie, and the bastard son of a grocer in Rue Saint-Martin; that he keeps a pretty young mistress; and that an old, rich, voluptious dowager keeps him. So much for the Bull family's visit to Paris.

INTERCOURSE WITH THE WORLD.—Increasing our connections with mankind is like an extended line of an army, vulnerable at many points, and liable to be broken and discomfited. If we concentrate and incastellate our forces, we may, indeed, remain undisturbed, and we may also lose all in a coup-de-main. Alas! how dark is the ken of human foresight.

NEW-YORK AMERICAN.

SEPTEMBER 6—12, 1834.

LITERARY NOTICES.

PRACTICAL PERSPECTIVE for the Use of Students; translated from the French of *T. P. Thénot*, by one of his Pupils. New York: Bliss, Wadsworth & Co.—The aim of this treatise is to enable those who have not acquired the mathematical principles upon which the art of perspective is founded, still to comprehend and observe its rules.

The translation here offered has the sanction of the professors of the art, and its lessons are enforced by good engravings.

FRANCIS BERRIAN, or the Mexican Patriot: by TIMOTHY FLINT, 2 vols. Philad.—KEY & BIDDLE.

This is a second edition of a work heretofore noticed in these columns, as developing, amid many improbabilities, scenes of great interest. The writer—as our readers from the frequent extracts we have made from his various publications know—possesses in no ordinary degree the power of moving the passions; and there are occasions in these volumes when this power is abundantly exercised.

THE KNICKERBOCKER for September. N. Y.—J. Disturnell.

THE NEW-ENGLAND MAGAZINE for September.—Boston—J. T. Buckingham.

The first paper in this number of the Knickerbocker, is from the same pen as *Francis Berrian*, and presents the substance of an elaborate lecture delivered by the writer before the Cincinnati Lyceum on "The Past—the Present—the Future."

This is a mighty subject. In the present instance, however, it is treated cursorily but cleverly. Of the Past, the lecturer thus speaks:

The most important intellectual era which our world has seen, was the period of the invention of printing. Well might the retainers of the hierarchy of the day give out, that the inventor borrowed it of Satan; for it rung the eternal knell to bulls and anathemas, and all the terrible influence which the priesthood possessed over hood-winked ignorance and blind submission. The press lifted its mighty banner, labelled from the beginning, "*No aristocracy of science—no influence but persuasion.*" Truth heard in her dungeon, felt that her time was come, burst her chains, threw open her prison doors, and with persuasion in one hand and reason in the other, commenced her unwearied and unabating progress. The reformed nations took up the Bible, and insisted that God had given them the inalienable right of interpreting it for themselves. The polarity of the needle, and, as a consequence, America was discovered, and a new and irrepressible impulse was given to the human mind.

True, there was a strong revulsion. The Inquisition kindled its fires. Gallileo had published that the earth moved round the sun, instead of the sun round the earth, as was the orthodox doctrine of astronomy. The priests, on the contrary, willed the sun to move and the earth to stand still; and they had power to compel Gallileo to burn his books, and abjure his doctrine, But the stubborn order of the universe continued to chime the eternal music of the spheres in its own way, bulls and anathemas to the contrary notwithstanding. Persecution was as powerless to shake the invincible purpose of the free spirit, as to reverse the movements of the heavenly bodies. As one martyr to the truth fell one after another, ten aspirants arose to replace the victim, and to thunder in the ears of tyranny, that neither fear, fire nor death can awe the free mind, or change its convictions. Every year brought accessions to the mass of knowledge, and vigor and fearlessness to the spirit of inquiry. Truth became eagle-eyed, and capable of contemplating the sun with undazzled vision.

The early magistracy and priests of our country had learned in a school—for, in fact, the age knew no other school—that fines may convince, that imprisonment is an admirable framer of syllogisms, that the fear of death can alter a man's convictions in a moment, and that the argument of perdition is perfectly irresistible, unless the mind were given over to judicial blindness. They had seen the Catholics of the old world ply the Lutherans with these most persuasive reasonings. They had observed that the Lutherans, as soon as they had ability, charitably propounded them to the Calvinists. The Calvinists, having felt their efficacy, in their own case, made a gracious tender of them to Servetus and his followers.

Intrepid for indurance as they were, our puritan fathers relished not this vehement ratiocination; and as they came over the seas, they talked earnestly about freedom of conscience and opinion; meaning, as it afterward appeared, that they understood all to be free who were of their opinion, and none else. But though the avowed object of their coming to America, was, that they might make sermons of such length and opinions as pleased them, they early began to bethink them of the easy and approved modes of conversion in the father land. The Quakers were among the first to experience the benefit of these remembrances. Scarcely had their own singed hair ceased to smell of the fires of persecution, from which themselves had escaped, before they began to persecute in their turn. History and song have lauded our forefathers; and of right, for they were great and good, notwithstanding this inherent infirmity of the age and the human mind; but for this we praise them not.

To the eternal honor of our country, its genius from the beginning has been hostile to cruelty; and the argument by fire has never been allowed. It soon also renounced that by fines, imprisonment, and banishment. Our first act, after becoming a nation, was to forget the whole doctrine of persecution, to restrict the priesthood to spiritual functions, to lay a final interdict upon the bans between church and state, and to engraft perfect freedom of opinion, as the master principle, into the body and spirit of our constitution.

Here then we can proudly point to one country, where all opinions are equal in the eye of the law.

Passing on to "the Present," and rapidly indicating some of its peculiarities, this summary evidence of improvement is presented:

As an evidence that the condition of humanity is improving, in consequence of the progress of the age, we select the fact that it has been demonstrated, by comparison of the bills of mortality of most civilized countries, that the annual number of deaths has diminished in the ratio of from three to six per cent., and that in the same countries the length of human life has been extended nearly in the same proportion. As one of the chief elements of this result, we may count the benevolent, and we might add, sublime efforts, that have been made for the suppression of intemperance. An equally palpable one is the discovery of vaccination. What spectacles of horror and mortality would not American cities hnve exhibited, but for this discovery! In demonstration of the ignorance, prejudice and error, that are yet to be vanquished, we produce the fact, that our bills of mortality present no inconsiderable number of deaths of victims either to ignorance or disbelief, or reckless neglect of the vaccine disease, as a preservative against small pox. Are proofs required of improved comfort? We select the improved facilities of rapid, cheap, and comfortable travelling; for we hold, that of all our physical enjoyments, that of cheap and pleasant travelling is the highest and most beneficial. Let us take the Great West for exemple. A family can now travel a thousand miles in many directions, cheaper and more comfortably than they could an hundred, when we first decended the Ohio. Contemplate the pleasure of meeting the intelligent, distinguished, and beautiful,—statesmen and scholars—from every nook of our vast country, courting the cool breezes of the sea, or quaffing medicinal waters at the points of fashionable resort. Not only the most rational pleasure, but enlarged liberality, the breaking down of sectional feeeling, and improved ideas in every respect, cannot but result from those annual summer excursions. The beautiful bay of N. York is wedded by a chain of the most commodious water communications, embracing all the vast fresh water seas of the north, with the Miss s-sippi and the Gulf of Mexico. Add to this view the great railroad to the Ohio, and the rail-car hoisting its flag to the breeze, and floating from the queen city of the Chesapeake towards the beautiful valley of the Ohio, at the rate of fourteen miles an hour.—Need we ask, what would have been the aspect of Cincinnati at the present day, but for the invention of steamboats? Need we contrast the farmer's team, starting in the month of March through the bottomless mortar beds from Dayton to this flourishing and beautiful city, with the canal boat bringing down its thirty tons of freight, its pleasure party, and its band of music at the same trip? In a word, the whole relative order of things in the West, compared with its condition when we first saw it, is the contrast of the immense steamboat proudly sweeping past Cincinnati with its gay town of six hundred inhabitants, and its burthen of five hundred tons, and rounding to the levee at New Orleans in eight days, with the flat boat, moving with the current, starting with the first verdure of spring, to encounter the toil, insalubrity, current, storms, sand-bars, snags, and nameless dangers, with its unwieldly motion, and making a fortunate voyage, if its owner returns safe to his family, to find his harvest ripe for the sickle.

"The Future" is thus sketched out in part:

Let us imagine some features of the anniversary address of him who shall have the honor to lecture to this Lyceum fifty years to come.

"Permit me," he will say, "to take a retrospect of things as they existed fifty years ago. Let me begin with religion. There were then in the land nearly three hundred Christian sects, with the most unpronounceable names in the language. They all proclaimed that God was love, and the Saviour the Prince of Peace; and that, to be his disciple, was to go about doing good. I venerate the gospel, and I dare not go into the Christian practice in those times. If all those sects had had thunder at command, how often it would have thundered! They wrote books against each other, and tracts, and pamphlets, and reviews, and sermons, and journal paragraphs; and there was pope and anti-pope, and presbyter and anti-presbyter, and high church and low church and no church, and radicals and ranters—*ad infinitum*; and the world was stunned with the fierceness of their pureile disputes. In fact, literature was obliged to adopt a term for the spirit of religious disputation. It was named *Odium Theologicum*, or as they translated it in those times, a *righteous hatred*. It is said that all the sects were never known to agree but in one thing, and that was, to allow the current value to the circulating medium of the country. But we are removed fifty years from those gloomy times; and now the greater portion of mankind are Christians on the ground of investigation and conviction; and those who are still so unhappy as not to be so, are obliged, by reverence for the truth, to say of all the sects, 'See how these Christians love one another!' The Christian of every sect takes his brother of every other by the hand. A minister of the gospel is no longer known by the name of his denomination, or by his garb or cloth, but by his mental enlargement, his broad and philosophic views of Christianity, the sanctity of his life, and his more active zeal to do good. Not a book of controversial divinity has been written for the last ten years. The motto of every church, the distinctive badge of every denomination, is, 'Glory to God in the highest, on earth peace and good will to men!' They had hackneyed the term *education*, even fifty years ago, in all the changes of dull common-place. But the elements of that sublime science had scarcely been separated from their chaos. Think of their devoting seven years, the morning and the prime of life, to Latin and Greek, particles and prosody included! The Hamiltonian and Bolmarian systems of teaching languages were scouted from learned halls, as too vulgarly efficient and rapid in teaching. The venerable fathers had entered the interior of the temple of science through the discipline of birch and tears, and for the credit of the fane, they would not permit a cheaper admission for their sons than themselves. The pupil was taught from the catechism, the pulpit, and the Sunday school, that all good children were so humble as to *esteem others in honor better than themselves.* As they went forth to the secular instruction, the same children were bidden to reach the head of the class, or expect no favor from their parents. On one day in the week they heard that the highest virtue is benevolence, and the best union of character the properties of the serpent mixed with those of the dove. For the other six days, the serpent was the chief inculcation by way of precept and example.—The priest, the instructer, the *litterateur*, the politician, the dancing-master, the world, and the ladies, all communicated distinct and the most opposite impulses; so that nothing could be a more perfect motley of rules of life than the instructions fixed in the memory of the pupil. Is it strange, under such circumstances, when cast into the whirlpool of the world's seductions, that the subject was carried down with the current, and listened finally to his dissipated companion, who assured him that every thing was a lie and a cheat but pleasure, and power, and money? All are aware that we have long since consigned Jupiter and Juno, Mars and Venus, Apollo and Minerva, with the famous Nine inclusive, to the *moles and huts*, to moulder with the things that were.—

We now learn ancient languages for the power which translation gives us over words, and for the spirit of the classics and the philosophy of language. But we acquire modern languages, especially French, German, and Spanish, to perfection, for very different purposes. We study profoundly the natural and exact sciences; and we surround the minds of pupils with such a series of influences, as that one never counteracts the other. Every thing concurs to imbue the young mind with Christian principle and feeling; that is to say, with the most perfect philosophy of morality; and the whole impulse of education is to form a firm, balanced, and consistent character.

Passing over the other articles in prose and poetry, we make room for the following very honorable and characteristic letter from Gen. Washington:

Extract of a letter to the Editor of the 'American Museum.'

MOUNT VERNON, JULY 21, 1788.

SIR:—If I had more leisure, I should most willingly give you any such communications (that might be within my reach) as would serve to keep up the reputation of your Museum. At present, occupied as I am with my agriculture and correspondences, I can promise little. Perhaps some gentleman connected with me may make some selections from my repositories: and I beg you will be persuaded, that I can have no reluctance to permit any thing to be communicated, *that might tend to establish truth, extend knowledge, excite virtue, and promote happiness among mankind.*

With best wishes for your success, I am, Sir, your most ob't h'ble serv't, GO. WASHINGTON.

Mr. *Mathew Carey.*

In conclusion, we present a highly poetical invocation to

NIGHT.

WHY should I seek my rest?
My thoughts are tranquil now;
And pleasant scenes in Memory's track,
And gentle hours come thronging back,
Forgotten long ago—
Till dreaming, waking, I am blest!

The holy, pensive Night!
Away with sleep for me—
I love the thoughts that round me press,
The mystery, and the loneliness—
The varied fantasy
That come when vanishes the light.

The day! the day! I fear!
With all its bitter, 'carking care,'
Its weary round of toil—its gain,
Its strife, its pleasure, and its pain—
Its many thorns, that wear
Into the struggling soul, and rankle there

Its heartless, hollow mirth,
Its tempting voice, that to the ear will come;
Its gay delusions, soon to pass away—
Before the sun-set tells of closing day:
Its rudely-mingled hum,
Bringing the soaring spirit to the earth.

Oh no! the busy day
Hath few bright spells, like thee, most holy Night—
Few dreams of Heaven—no deep and thrilling tone,
Soothing the chilled heart and the spirit lone:
Telling of worlds of light,
Where yet our wandering steps may find a way.

Deep night! One breath of thine
On the flushed brow, falls like a cheerful spell;
There drops a healing balsam from thy wing:
A gift of thought, of peace, 'tis thine to bring,
Sounding the heart's deep well—
Lighting its depths with many a ray divine!

Then shall I call it given
For sleep, and seek my rest, this holy time—
While the deep stars are looking from on high,
Stop the thrilling ear and close the musing eye?
Is there not now some heart that once with mine
Did mingle, watching the wide, solemn heaven?

Give me, fond Memory, but one music tone—
Give *one* bright presence back. Now wave thy wand!
Yet rain upon the ruined shrine thy glow,
As if upon the sweet wild flowers that blow
Far midst the rocky cliffs, in mine own land,
Freshly and fair—the passing moon beams shone.

Oh Night! thine is the power
To call long vanished scenes around the soul,
With a new beauty—link the broken chain
Once more, and weave the silken bond again,
That o'er our spirits held a blest control,
In youth's fair morning hour.

Then is it not most meet
That to the dreamer o'er vain hopes, but high,
And to the seeker after visions gone—
The pensive, lonely wanderer, whose home
Gleams not as once upon his waking eye,
Night *should* be sweet?

This number of the *New England Magazine* is, as usual, well sustained. None of the papers heretofore objected to by a correspondent of this paper, calculated to infuse a spirit of religious scepticism, appear.

There are many good articles—among them a just and well written biographical memoir of Dr. J. W. Francis, of this city, from which we purposed to make a long extract, but the foreign news prevents.

We insert the following short and lively paper:

My System of Philosophy.

There is nothing in heaven or earth not treated of in my Philosophy.

I have invented a new system of Philosophy, and I am happy to announce to the public the completely satisfactory termination of my labors on this subject. I first modeled it ten years ago. I have fulfilled to the letter the injunction of the ancient poet, Horatius Flaccus, namely, to keep my work nine years before publishing. In the mean time it has received all the reviews, revisions, alterations, amendments, and improvements, that human ingenuity could suggest or devise. It is now perfect.

I have given this system the name of *Phrenodontology*, a name derived from three Greek words, signifying the mind, a tooth, and the word or doctrine. (I explain for the benefit of the unlearned, as this system is of universal application.) "Phrenodontology," therefore, means the doctrine of the mind in connection with the teeth—and not, as some trifling minds would interpret it, "in the teeth of Phrenology." This system is *not* in the teeth of Phrenology. It does away, entirely, Phrenology, Materialism, Idealism, Scepticism, and all other similar vanities. The questions will not be asked—"Are you a Phrenodontologist?" "Are you a disciple of *the great** Dr. Glanzknecht, the father of Phrenodontology?" "Do you believe in Phrenodontology?" It may possibly be asked in the wilds of Ethiopia, "Have you heard of *the System*?" But even this will soon cease to require an answer. Every body will know, every body will believe, every body will practice it. It is, consequently, far beyond the reach of criticism or satire.

I perceive the reader is impatient to know more of this truly wonderful science. One instant more, and I will commence some account of it. But first I wish to take notice of an objection to the name I have given it—an objection to the *name*, (observe, gentle reader,) to the name, and not to the science. Some minds of little thought and slow observation have remarked, that, from the similarity of the name, *Phrenodontology* might be confounded with Phrenology. If there be any, who, upon second thought, come to such a conclusion, let them read the tenth sentence in this article, and be convinced that their conclusion is incorrect. Now for the doctrines:—

First. The mind of man is situated in, and developed upon, his teeth. Here the question arises—"What is the mind?" I answer, the compound of all mental and moral qualities, propensities and sentiments. This is evident, *for*, if it be asked, "What is the compound of all mental and moral qualities, propensities, and sentiments?" what but the mind? Any one, therefore, who doubts the truth of my definition of the mind, should be placed, as soon as may be, in the hospital for idiots, for the foundation of which hospital—to be conducted upon purely Phrenodontological principles—I have made a provision of one hundred and thirty thousand dollars in my will. (I wish I could afford to have it put in operation now; but as I have not yet received from the government of any of the nations of the earth, the pensions they will undoubtedly award me, on the receipt and knowledge of my system, I think the scheme impracticable.)

"The mind of man lies in his teeth." This proposition requires no proof. As soon as it is stated, we perceive the utter absurdity of the doctrine inculcated by the Phrenologists, and so generally believed, that *the brain* is the seat of the mind. If facts, however, are required, we can state them. The only difficulty is in selecting from the vast mass with which we are surrounded. I will relate a circumstance which once happened to myself, and by which I nearly lost my life. It was about eight years ago—two years after I had discovered my system. Had I lost my life before my system was revealed to the world—but no—I'll not dwell upon the thought.

I was walking along the street, one day, when I observed a man approaching me, who, as I judged from the shape of his face, had a remarkable protuberance in the internal dexter corner of the second molar of the left lower jaw, where is situated the organ that would make a man a murderer. I should have avoided him, had my *caution*† been great. As it was, my curiosity being far more developed, I approached, and stopped him. "Bless me!" said I, "my dear sir, will you have the kindness to let me look at your mouth a moment?" His looks expressed what I then took to be surprize, but what, upon recollection, I am satisfied must have been *demoniacal rage and malice.* Further than this, he made me no answer, but opened his mouth in such a manner as a shark would, when about to bite a man's head off. I have, a thousand times since, shuddered at the thought of my situation at that moment. It was as I had supposed,—the organ of murder was *horribly* developed. "Well, sir," said he, in a voice of thunder, "what is the result of your examination of my mouth?" "I should think, sir," was my reply, "that you were more likely to have committed a murder than any person of my acquaintance." "What, sir," said he, "do you——" "It is a fact, sir," said I, "for——" I should have said more, but he gave me such a blow, that it laid me stunned upon the pavement, thus showing to all, what I was perfectly aware of before, viz. his murderous disposition. I have never met this man since, and I have no doubt that he was a murderer, escaped from justice. My fall however, proved a fortunate one for me, for it knocked out one of my front teeth, containing the organ of avarice. Before this fall, I was, it must be confessed, exceedingly avaricious,—afterwards the propensity left me entirely.

This leads me to state a fact that is, probably, unknown to most of the world. Every body has heard of the horse whom his master taught to live on shavings, but who, unfortunately for the cause of the experiment, died soon after he had acquired that faculty. Well; *that horse belonged to me, and I was the master, who succeeded in teaching him this mode of nourishing himself.* The way it happened was as follows:—I had observed one day, (it was just after the discovery of Phrenodontology,) that this horse had the organ of docility, which is situated in one of the incisiors of the upper jaw, very prominently developed. My avarice suggested to me the idea of teaching him to live upon shavings alone. He soon acquired the power, but (alas!) died soon after. I discovered, after his death, that his organ of vitativeness was extremely small. I have his jaws in my collection, which the curious are invited to call and see. Since the loss of my avarice, my curiosity and my love of science would have led me to try the same experiment with another horse; but I never have been able to find one equal in docility to my lost nag.

A lady once informed me that one of her sons had a propensity to steal. He would steal any thing and every thing that came in his way; and she applied to me, as she said, because she knew me to be versed in matters of the mind, and she wished me to devise some punishment for her son, that would be likely to effect a change in his mind. I requested leave to examine his teeth. The boy was sent for, although the mother could not see what his teeth had to do with his thievery. I examined his Phrenodontological development, and found the organ I expected prominent. I immediately advised his mother to have one of his bicuspidate teeth extracted. The operation was performed and the boy has not been known to steal since.

Having proved this point, then we come to the second proposition. But no,—I ought not to go any farther with this,—for I would not deprive any one of any of the pleasures they will derive from the perusal of my work,—the "Outlines of the System of Phrenodontology"—now offered to the world, and for sale at any of the bookstores. I am naturally inclined to be prolix. I once made a stump speech nine hours long, and, probably, should not have stopped then had not I been arrested and sent to Bedlam for an insane man. But in my "Outlines,"—which the reader had better buy immediately,—I have, I fear, been too concise, the whole work being comprized in one small printed folio volume of seven thousand pages. Only think, gentle reader, but seven thousand small printed folio pages, upon such a subject as PHRENODONTOLOGY.

NEW YORK LITERARY GAZETTE, &c. edited by A. D. PATTERSON.—In a large 4to. form, this new candidate for public favor presents itself, with all the aids of external embellishment, good type and good paper. Its criticisms, too, though not evincing any remarkable vigor of style, or labor of research and comparison, are fair enough—excepting that on the little volume of "Things as they Are," in which, passing over what is really clever, fresh, and original, in its pages, the critic pounces with all his might upon the errors of haste, and, occasionally, of bad taste.

The Gazette is to appear semi-monthly, at the cost of 12 1-2 cents.

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* I am happy to be able to assume this title without *vanity*, of which quality my Phrenodontological development shows that I have none. It is a title which must be universally accorded to me.

† I have adopted many terms from the late science of Phrenology, as I find them convenient; and the science, being superseded and defunct, has no further use for them.

It is proposed to publish by subscription an English translation, made in this country of "My Prisons," by Silvio Pellico, and of the "Additions" to that work by Pietro Maroncelli, for the benefit of the latter gentleman, now a dweller among us. Subscription lists will be found in the Athenæum and the office of this Gazette. It seems hardly necessary to express a hope that this undertaking will meet with complete success. Americans, especially, must sympathize with the unfortunate and distinguished individuals who for so long a period were the victims of despotic persecution on account of their liberal principles.

Signor Maroncelli is an object of the strongest interest from his history; and he is every way worthy of the utmost consideration on account of his private virtues, his high endowments and extensive attainments. Such a refugee from the tyranny of the old world, may be deemed to have a positive claim upon us for protection and assistance. He has been, as it were, the advocate and defender of our institutions abroad, and has testified his devotion to them with a martyr's spirit and constancy. It ought to be proved to him that his merits in this respect are fully appreciated. The cause for which he suffered is our cause, and it behoves us to make manifest the gratitude we should feel for his efforts in its favor, as well as the commiseration we experience for the misfortunes which they produced.

We extract the above announcement from the National Gazette, and, concurring as we do in what is so well and justly said of Signor *Maroncelli*, and of the cause in which he suffered, we shall take the greatest pleasure in aiding such a publication for his benefit.

FOREIGN INTELLIGENCE.

Two Days Later from England.—By the *St. Andrew* from Liverpool, papers of 30th from London and 31st from Liverpool are received.

It was expected that Parliament would be prorogued on or before the 12th of August.

The bill for the admission of Dissenters to the Universities, was passed in the House of Commons, July 29th, and sent to the Lords. On the same day the Irish Coercion bill was ordered to a third reading.

In Madrid, the ravages of the Cholera had been deplorable The population of that city, including the ordinary number of strangers, soldiers and clergy, is under 200,000—out of which, the daily mortality for some days exceeded 400.

The young King Otho, of Greece, seems to experience difficulties from his revolted *Mainote subjects*. In an attempt to put down the insurgent Maniotes, a large body of government troops were obliged to capitulate.

Earl Bathurst, formerly Secretary of the Colonial Department, died at his residence in London, July 27th.

The Earl of Oxford has paid all his creditors. The estates have been at nurse for a quarter of a century, and during that long period his Lordship has been in seclusion. Haywood Hall, a romantic place in the midst of a wood, has been his dwelling.

The St. Petersburg papers announce the arrival of Captain Ross in that city.

Passengers may now travel in about twenty-seven hours from London to Brussels.

In the year ending Jan. 5, 1833, the quantity of wool exported from Sidney, New South Wales, was 1,334,948 lbs.; in the year ending January 5 1834, the total quantity exported was 1,784,203 lbs.

Hobart Town papers estimate the total value of articles of colonial produce, exported from Van Diemen's Land in the year 1833 at £152,966, and of the imports, consisting chiefly of British manufacture, during the same period, at £352,864.

The ports of Greenock and Port Glasgow have been approved of by the Lords of the Treasury as ports for the importation and warehousing of tea.

Cherries have not been so plentiful in Kent for the last fifty years. They are hawked about at Maidstone, literally in cart loads, at a penny per pound.—The crop of apples is also good, but pears, plums, and filberts are a failure.

At the recent exhibition of manufactures in Paris, the King of the French conferred the decoration of the Legion of Honor on Mr. Pierre Erard, the celebrated harp and pianofort manufacturer.

A gentleman named Young, residing at Main, Elgin, has in his possession a sparrow perfectly white. He secured it when going to roost one evening, and it is now quite tame.

The King of Prussia has conferred upon Baron Nathaniel Von Rothschild, the title of "Secret Counsellor of Commerce."

Charles X. has bought the domain of Nachod, in Bohemia, for 2,500,000 florins. This estate was said to comprise more than 40,000 inhabitants, and to confer almost absolute sovereignty on its proprietor. The Ex-King may therefore still play the Monarch on a small scale.

Anonymous Wine.—On Lord Byron's favorite servant one day opening a bottle of wine in Greece, his lordship questioned him as to its name and lineage, of both of which Fletcher acknowledged his ignorance. "Then away with it," rejoined Byron, "I hate anonymous wine."

Fifteen persons were killed lately at Stradella, in Piedmont, by the falling of a church tower, a short time before divine service.

Elisondo, in the North of Spain, which Don Carlos has made his head quarters, is a small town at the left bank of the Bidassoa, the chief place of the valley of Bastan, and eight leagues and a half north of of Pampeluna.

Letters written from Gibraltar by the Neapolita Consul, and received at Marseilles, announce that peace has been concluded between the King of the two Sicilies and the Emperor of Morocco.

Demoralized state of the British Army.—Mr. Ellice has informed the House of Commons, that "in the last two years one fifth of the whole Army on English stations has passed through the public gaols." One fifth in two years is the same as the tenth annually; and this presents to be sure a pretty picture.

Mr. George Thompson, the eloquent lecturer against slavery in the British Colonies, will embark at Liverpool for the United States on the 8th of August, there to exert his talents in behalf of the unfortunate beings oppressed by republican freemen.—

So says an English journal. We say, he'd better stay at home.

Monument to the Memory of Mr. Canning—In addition to the bronze colossal figure erected about two years ago in the enclosure fronting Palace-yard, a beautiful marble statue of this distinguished individual, by Chantrey, has just been erected in Westminister Abbey, the expense of both being defrayed by a public subscription, which was raised for the purpose among his friends and admirers, at the time of his decease, and which amounted to upwards of £11,000.

Here is a sum of $50,000 nearly, paid by a few admirers of *George Canning*, in order to construct a monument to his memory; while by this nation, led to Independence by George Washington, no monument has been erected to his name.

The Reformed House of Commons differs in many of its scenes, certainly, from the more measured and staid character of former Houses. On a recent occasion, while discussing the Irish Tithe bill, Mr. *O'Connell* proposed an amendment, which he thus sustained:

The object of his amendment was to relieve the tithe-owners immediately, to the extent of 40 per cent. If thi plan should render it necessary to draw upon the Consolidated Fund for a small amount, the people of England would not begrudge it, in order to effect the settlement of this important and difficult question. (An expression of dissent from the Ministerial benches.) "Oh!" exclaimed the Hon. and Learned Member, "Oh, I wish we were blacks!—(A laugh.) If the Irish people were but black, we should have the Hon. Member for Weymouth coming down as large as life—(Laughter)—supported by all 'the friends of humanity' in the back rows, to advocate their cause. (Cheers and laughter.) They would think little of 120,000*l.* or 1,000,000*l.*, if it were to be given to 'the sweet lovely blacks of Ireland.'" (Continued laughter.) The Hon. and Learned Member concluded by moving an amendto the effect before stated.

Mr. Spring Rice and others on the Ministerial benches feebly opposed the amendment.

The Committee then divided, when there appeared—

For the amendment	82
Against it	33
Majority against Ministers	49

The announcement of this division was received with cheers.

Lord Althorp then proposed that the other clauses connected with this part of the bill should be postponed for the present. The decision to which the Committee had just come deranged most of the details of the bill. The alteration thus made in the bill would carry the principle of the bill more rapidly into effect than he considered prudent.

Mr. O'Connell said, that whatever course the noble Lord might think it right to adopt after this decision, this was clear—that it was the duty of those who had supported the amendment which had just been carried to give every aid to the noble Lord in forming the new machinery of the bill, and in seeing whether this experiment could not be carried fully and fairly into effect. He should consider it to be his sacred duty to give the noble Lord every support in his power upon this very important subject.

Mr. Shaw said, that after the opposition which the honorable and learned gentleman had received from government, it was undoubtedly his duty to give the government his support. (Hear, hear.)

Lord Althorp hoped that the Hon. and Learned Recorder for Dublin did not mean to insinuate that his opposition to this amendment had not been sincere. (Hear.) The Hon. and Learned Gentleman seemed to have forggotton that Ministers had it no longer in their power to command willing majorities, in consequence of the changes made in the constitution of the House by the Reform Bill. (Loud cheers.) He was ready to admit that, on occasions where a great principle had been involved, and where, if the motion had been carried against the Ministers, Ministers could not have continued to carry on the business of the country, he had expressed in the House a determination to resign, if the question were decided against them. But on the details of a measure merely carrying out a principle of which he approved, more rapidly than he thought advisable, he should have been ashamed of himself if he had had recourse to the inducements of which he had availed himself on former occasions.

Mr. Shaw had no intention to question the sincerity of the noble Lord. (Hear, hear.) But he must again say that, notwithstanding the large, and he was sorry to add, the overbearing majority against Ministers, he could not bring himself to believe that Ministers generally wished the decision on this amendment to be such as the noble Lord wished it to be. (Hear, hear.) He believed that many gentlemen who usually supported Ministers, had avowed that, on this question, Ministers wished to be beaten. (Loud cries of "Name.")

Mr. Ireton said, that a supporter of the Government had that day asked him how he intended to vote upon this amendment. He had replied, that he did not think that he should vote at all; but that, if he did vote, he should vote in favor of Ministers. The gentleman told him immediately that he need not give himself that trouble, for the Ministers wished to be beaten. (Loud cries of "Hear," and of "Name, name.")

Lord Althorp said it was true that he had not desired any Irish members to vote in favor of the original clause; but it did not follow therefrom that he wished the clause to be lost. On the contrary, he wished it to be carried, as he thought that it would prove beneficial to Ireland. (Hear.)

The amendment was then put and carried.

The avowal of Lord Althorp that minorities could no longer control majorities, as in former days—the *nonchalance* of Mr. Ireton, whose vote seemed a matter of as much indifference to ministers as to himself,—and the character of the whole proceeding here recorded, are novelties in St. Stephen's Chapel.

The Reformed House of Commons.—We annex another illustration of the working of the House, which used to be called an assembly of the "first gentlemen in England." It is to be remarked, however, to the credit of those whom Reform has introduced to the House, that they seem by common consent to be exempted from any participation in disorderly scenes of the nature of those recorded below. The disturbers are, for the most part, young sprigs of fashion.

[*From the London Courier, of July* 29.]

The debate being on the question of admitting Dissenters to the University, and having been got at somewhat late in the evening,

Lord Palmerston, rose amidst most discordant sounds. The noble Lord said the argument of the last Right Hon. speaker was founded on this—that it was incompatible with the religious principles which formed the groundwork of the Universities, that persons differing from those principles should be empowered to partake of the advantages they offered. That was his argument; and he should cut it from under him with one simple remark. (Coughing, scraping of feet, and expectoration.) How did the Right Hon. Gentleman reconcile his argument with the practice? (Uproar.) Dissenters could have the benefit of education at Cambridge as completely now, as they could under the provisions of the bill which they were then discussing. But it was said that the measure before them was subversive of the true interests of the State. (Coughing, and vehement cries of bah, divide, divide.) He denied that it was so, and would declare his honest opinion, that it would tend to strengthen and perpetuate those great interests. He really could not see on what ground those who consented to the repeal of the Test and Corporation Acts, and the emancipation of the Catholics, opposed this act of substantial justice.—(Great uproar and yelling.

Sir R. Inglis essayed to address the House, but for many seconds his words were completely drowned in the noise. The Right Hon. Baronet was understood to declare that whatever might be thought of the authorities of the Universities, they would be found to act from conscientious motives, and on lofty principles. He could very well believe that a Whig would prefer place to principle—(Cheers and confusion)—that he would betray the latter at any sacrifice, to secure the former; but not so with the men to whom he (Sir R.) alluded.

Mr. G. W. Wood rose to reply. (The laughing, jeering, shouting, and coughing, were such as has seldom been witnessed.) The Hon. gentleman said it had been declared that the bill in its present stage was essentially different from what it was when he had the honor to introduce it to the House. (At this moment two Hon. members suddenly entered from the smoking room into the Opposition gallery, and stretching themselves at full length on the seats, secure from the observation of the Speaker, commenced a row of the most discreditable character.) This he denied—("I say, can't you crow?" laughter and uproar). The provisions had not been altered—("Hear him how he reads"—Mr. Wood occasionally glanced at a memorandum in his hand)—the enactments were in every respect unaltered. (Loud cheering, followed by bursts of laughter). The question was—"Read it, read it!" and a great uproar)—the question—("Just so, read it!")—the question was—(Great cheering and laughter)—whether—("That's the question")—whether the Universities should be open to all, or be for ever under the control of mere monopolists—("Where's the man what crows!" laughter and loud cries of "Order" from the Speaker). Public opinion—("Oh, dear," and great uproar, during which the Speaker, evidently excited, was loudly calling for order, and turning his glass in every direction to note the delinquent members)—public opinion was decidedly in favor of this bill. (The scene here was indescribable.)

The Speaker rose, and with much indignation in his tone and manner said, "I really think that some one among those who are calling out in this strange and unparliamentary manner, would better satisfy the Hon. members with whom he is acting by moving at once that the debate be adjourned, than by taking a course of opposition which is so greatly at variance with the established usages of the House." (Loud cheers.)

Mr. G. W. Wood resumed.

There have been *scenes* in our House of Representatives, but nothing like this.

By the Charlemagne we have the King of France's speech on opening the Session of the Chamber. It is even more unmeaning than such documents usually are.

The "three days" of Paris had been celebrated; but, as we infer, with diminishing interest. There is indeed little left for rejoicing, to those who looked to the result of the resolution achieved in those days for a more liberal form of government than that which they overthrew. The nation, however, at large, was never more prosperous or more powerful.

HOLLAND.

PARIS, 31st JULY.—Important news is brought by the Holland papers of the 28th July, received by express. We read in the Hendelsblad—"We are informed of good authority, that on the 22d, the King had issued a decree by which all the members of the schuttery (National Guard) have been sent home, with unlimited leave of absence."

DON CARLOS.—It is now again *certain*—if there be any faith in telegraphic despatches—that this Pretender is within the borders of Spain; though from the annexed description of the place where we was at the latest dates—taken from the Journal des Debats of the 30th July—he was, it appears, so near the French frontiers, that a short run only would be requisite, in case of need, to save him from the clutches of the Queen's troops:

Lezaca, where Don Carlos was on the 28th July, is a little hamlet on the left bank of the Bidassoa, one league south of Vera, upon the road from Bayonne to Pampeluna, and a league and a half [about our of our miles] from Biriaton, the first village in France, which is now occupied by a battalion of the 4th Light Infantry.

PARIS, JULY 30.—The Government received yesterday morning the following telegraphic despatch of the 28th instant from Bayonne:—"Don Carlos arrived yesterday at Lesaca, near our frontier. Zavala with the Biscayans is near Oyarzem, and El Pastor is marching against him. Rodil is in the Borunda endeavoring to block up Zumalacarreguy, who is near Lecumberg. Some result is expected to-morrow."

A second telegraphic despatch, dated Madrid, 24th July at five in the evening, announces that the Regent had opened the Cortes in person at one o'clock of the same day, and that Madrid was perfectly tranquil.

PARIS, JULY 31.—No important news from Spain has been received to-day. The *Journal des Debates* announces that bands of Carlists have appeared in Caledonia.

FROM JAMAICA.—The *John W. Cater* from Kingston, (Jamaica,) brings papers of 15th ult., which prove that in the large Colony where slaves were so numerous, the emancipation law had gone into effect without disturbances of any significance. This is intelligence that must gratify all right thinking men.

The Despatch one of the warmest Journals in the Island in opposition to the plan, says:

"We have devoted a large portion of our columns to the accounts received from the country relative to the state of the apprentices, from which our readers will observe things is going on as well as the most sanguine patriot could wish. We have seen letters from every parish in the island on this all engrossing subject, and the writers are unanimous in declaring that the laborers went to their work on Monday with the utmost alacrity, and were going on with their work in the usual manner. No doubts were expressed of the new system, and we congratulate the inhabitants at large on the prospects we have now before us. Let us, however, continue on the alert, as we have dangerous and disappointed characters among us, whose sole object is agitation in the hope of being able to create an ill-feeling between the masters and their servants. In this, however, from what we have heard, they must fail in every instance where proper pains has been taken to explain the nature of the tie which at present binds them to each other. The laws are sufficiently strong to coerce the unruly, and to protect the industrious from ill treatment; and if this fact is strongly impressed on the minds of the apprentices, there is no doubt they will patiently await the hour of their emancipation, and by their zeal and assiduity in the fulfilment of their prescribed duties; and their respectful bearing towards their superiors and employers, justify the confidence which has been reposed in them.

SUMMARY.

The steam packet David Brown left Charleston on the 3d inst., but put back in consequence of some damage to the machinery. Would leave again on the 6th, for this port, via Old Point Comfort.

Letters have been received at the Navy Department from *D. Deacon*, Esq., commanding the U. S. frigate *Brandywine*, announcing her safe arrival at Rio Janeiro, after a run of fifty days from the Capes of the Chesapeake.

The Convention of the People of the State of Tennessee, which has been in constant session in Nashville since the 19th of May last, closed its labors on Saturday the 30th of August. They have adopted a revised and *amended* Constitution, which will be immediately submitted to the people, by the circulation of fifteen thousand copies of it, side by side with the old Constitution, for their ratification or rejection at an election to be held for that purpose on the first Tuesday and Friday in March next.

BATTLE WITH THE PAWNEES.—The following highly interesting information is furnished by the Arkansas Gazette of the 19th ult.

Desperate Engagement between the United States Dragoons and Pawnee Indians.—By a gentleman from Washington county, we learn that the United States Dragoons have recently had a bloody fight with the Pawnee Indians, in which the latter lost 80 killed and 150 prisoners. Our informant derived his information from a young man who was at Fort Gibson when the prisoners were brought in under the escort of a detachment of the Dragoons. The remainder of the United States forces belonging to the exploring party, were left in pursuit of the Indians. The Pawnees are said to have fought desperately, and to have killed eight of the Dragoons. Several Osage prisoners were retaken at the same time, from whom it was pretty satisfactorily ascertained, that the young man whom the Pawnees took from the Rangers last summer, had been killed.—These are the only particulars that our informant was able to collect. To-day's mail, or that of Saturday next, we hope will furnish the details of this affair.

BROWN UNIVERSITY.—The Hon. Asher Robbins delivered an oration, and the Hon. Tristam Burges, a poem, before the Phi Beta Kappa Society on Tuesday. The Providence Journal says—

Those who sat near enough to the pulpit to hear both the oration and the Poem, enjoyed a rare intellectual entertainment—and the large number to whom the learned orator failed to make himself audible must have been amply repaid for their patient attention by the beautiful, dignified and pathetic poem of Mr. Burges.

The Hon Mr. Robbins exhibited, in the treatment of his subject, (the importance of a National Literature) more than he has done on any former occasion that we are aware of, the profundity of his classical acquirements, for which he was already distinguished.

☞ FLORA MACDONALD.—All our readers know the romantic heroism with which this young woman, Flora MacDonald, conducted the escape of Prince Charles Edward from Scotland, after the fatal battle of Culloden. It is not so well known that she was long afterwards a resident of North Carolina; and—adhering to the principle of loyalty which in early life taught her to hazard every thing in the cause of the Royal Stuarts—she, on the breaking out of the American revolution, took sides for the King.

The true sentiment of honor and duty is well expressed in the last lines of the subjoined reflections of *Chateaubriand*. Travelling in the wilds of this country,—then a young man and a soldier, and attached by sentiment and social position to the cause of the monarchy,—he learned from a newspaper casually thrown in his way the flight of Louis XVI. from Paris, his arrest at Varennes, and subsequent imprisonment in the capital. Instantly abandoning all his plans, he returned to offer his arms to his Sovereign. He met with much hardship and little gratitude; whereupon he thus soliloquizes:

"The Bourbons had not need, that a cadet of Brittany should return from beyond the seas to offer them his obscure devotion: if I had lit the lamp of my hostess with the journal which changed the destinies of my life, and continued my voyage, no one would have perceived my absence, for none knew that I existed. It was a simple question between me and my conscience which brought me back to the theatre of the world. I might have done as I wished, as I was the only witness of the debate. *But of all witnesses this is the one before which I should fear most to blush.*"

Toledo Gazette.—Nothing (says the Cincinnati Gazette) marks more strongly the current of population and improvement setting North-west, than the growing up of new towns, and the appearance of newspapers. A day or two ago we received the first number of the Toledo Gazette, dated August 14. The subjoined extract informs where Toledo is, and what it has been.

"Our Place.—This town, lately called by the two appellations of Port Lawrence and Vistula, is handsomely situated upon the north west bank of the Maumee River in Michigan. The interests of these two points, as above described, are the same, inasmuch as they are dependent upon the same section of the country for support, and possess in all respects the same local advantages. The town is laid out upon a liberal and judicious scale, with wide and spacious streets, cutting each other at right angles, with intervening alleys two rods wide. It is about four miles from the entrance of the river into Maumee Bay. From this point to the Lake, the navigation has no obstruction to vessels and steamboats of the largest class, and the harbor is perhaps the best and easiest made of any on the Lake. There is no perceptible current in the river, as at this point it is on a level with the Lake, except such as is produced by the wind, and of course the waters here are not affected by freshets or rains. The depth and width of the river are such as to enable vessels to beat up, or down against a strong wind, it being about three-fourths of a mile wide, and of an average depth of twelve feet. The easterly part of the town, latterly called Vistula, became the property of the present proprietors in August, 1833; and a few lots were sold last fall. Early this spring, sales commenced, and have briskly continued.

There is no place in the western part of the Union that possesses greater advantages of location than this. We are aware that in making this assertion we are saying a great deal, but for its truth we need only refer those who are acquainted with our position to a map of the country. On the north-west and south, we have the finest and most extensive agricultural districts, much of which is already thickly populated, and great numbers of emigrants are daily removing to our town and neighborhood. A survey is now being made of a route for a Railroad from this place to Adrian, in Lenawee county, 22 miles north-west.

The section of the Road, which is chartered to extend to the navigable waters of Lake Michigan, will be put under contract this fall, or early next spring.

[Communicated.]

In a very learned notice on "*Measures, Weights, and Money*," by Col. Pasley, Royal Engineers, F. R. S, &c., just published in London, the author pays the following tribute to our countryman John Q. Adams.

"I cannot, however, pass over the labors of former writers, without acknowledging in particular the benefit which I have derived, whilst investigating the historical part of my subject, from a book printed at Washington, in 1821, as an official Report upon Weights and Measures, made by a distinguished American statesman, Mr. John Quincy Adams, to the Senate of the United States, of which he was afterwards President. This author has thrown more light into the history of our old English Weights and Measures, than all former writers upon the same subject, and his views of historical facts, even when occasionally in opposition to the Reports of our own Parliamentary Committees, appear to me to be the most correct. For my own part, I confess that I do not think I could have seen my way into the history of English Weights and Measures, in the feudal ages, without his guidance."

Such men as J. Q. Adams are honors, not to their country only, but the empire of learning. How infinitely above the knaves and dunces now most prominent in governing the country—the counterpart of the gentry of whom Cicero said, "ad honores adipiscendos, et ad rempublicam gerendam nudè veniunt—nulla cognitione rerum—nulla scientia ornati."—They have to be sure figured in the annals of Cabinet Literature, but it was only to show "with how little wisdom the world is governed."

Boston.—The ship Dover, arrived at this port last evening from Calcutta, haveng on board a fine large elephant eighteen years old. A Rhinoceros was also shipped, but died on the passage.

Prince Puckler Muskau.—This distinguished, spirited, and intelligent traveller, may be daily looked for upon our shores. A letter from Bavaria, from which we subjoin an extract, apprises us that he would embark for this port in the Havre packet of the 8th ult.

He will find a cordial welcome, and, we fear,—seeing that it will all be put in a book,—a deference for his title, little in harmony with the republican professions of which he will hear and read so much.

Extract of a letter from Bamberg, Bavaria, of 24th July.

I beg in advance your good offices for his Highness, *Prince Puckler Muskau*, who has spent some weeks with me here, and intends making a tour through the United States, when he will spend some weeks in New York. He will embark in the Havre packet of 8th August.

[*From the Alabama Advocate.*]

Westpoint Academy.—The report of the Visiters to this institution will be found in our paper to-day, and exhibits its past and probable benefits to our country in a very flattering aspect. We regret that the voice of clamor and prejudice should be raised against this national nursery of scholars and soldiers, which appears to us, while it continues to be as judiciously managed as it has been, capable of furnishing many bright and useful ornaments, not only to the scientific and military departments of our Government, but even to the social and intellectual circles of life. There is no college in our country where mathematical science is more profoundly and accurately taught—none where discipline is more perfect—none where there is a more complete and vigorous development of the physical powers. If to blend the sympathies of young minds with the rising glory of the nation; if to inspire noble, generous and elevated sentiments of honor; if to be educated *by* the country *for* the country; if to cherish a high and chivalrous reliance upon the skill and valor of our own officers, are objects worthy of national care and consideration, surely this institution eminently merits the support and encouragement which it has hitherto received. It has been made a ground of objection to this Academy, that its favors have been conferred too exclusively upon influential and wealthy families. We apprehend that this spirit of imputed favoritism has been very much exaggerated. Perhaps the error lies in wishing to make that a monopoly which was never intended to be such.

Was this institution established as a public charity, where the *poor* only were to be educated? Such, we presume, was not the sole and primary object of its organization. It was to draw out and foster the common talent of the nation, come from what sphere it might, and array it, when occasion required, in defence of Liberty and the Constitution. We should undoubtedly prefer that much the largest proportion of students should be taken from that class who are destitute of the means of obtaining a liberal education. Not that they should look upon it as a favor to which they are exclusively entitled; but because the boundaries of knowledge are thereby widened, and the sympathies of minds, thus nurtured at the public expense, will become more closely entwined with the institutions of our land—the sentiment of gratitude will be deeper and stronger towards a government which scatters, with a benignant hand, the lights of virtue and intelligence among its most obscure and unfriended citizens.

[*From the (Ostego) Cooperstown Republican.*]

"Templeton Hall."—This venerable mansion, once the residence of Judge Cooper—the "Judge Templeton" of the "Pioneers"—has lately been purchased by his son, *James Fenimore Cooper*. For several years it has been almost wholly unoccupied, and has suffered much from the weather—the walls however are still good, and the whole building is to be thoroughly repaired and fitted up for the future residence of Mr. Cooper. We welcome him back to the home of his youth, and hope he may spend many pleasant years amid the scenes which his pen has immortalized.

[*From the Philadelphia National Gazeite.*]

It is with deep regret that we record the death of Don Juan Bautista Bernabeu, His Catholic Majesty's Consul General for the United States. This distinguished gentleman sunk, on the 3d inst., under a very painful malady, which he bore for a long time with exemplary fortitude. He was born at Alicant, in Spain on the 14th June 1772, and served his King, in honorable stations, upwards of forty years. A more loyal and zealous Spaniard never lived; and if enthusiastic devotion to the character and welfare of his country, and a thorough performance of official duties give title to favors from the Spanish government, his very respectable family may claim much on his account, from its gratitude, justice, and liberality.

The Blind Man's Bible.—We have before us, in a goodly quarto volume, the Gospel of St. Mark, printed, or rather embossed, for the use of the blind. This is the first book that has been prepared in this country, on this plan. It is the handy work of Mr. Snider, the gentleman who acts as secretary of the institution, and is a beautiful illustration, if not fulfilment, of the prophecy, that the "the blind shall see." This admirable specimen of the art of embossing letters, is worthy the attention of the curious.—[U. S. Gaz.]

The Norfolk Herald of Friday last, notices, with great satisfaction, the arrival there of a locomotive engine, long expected from Philadelphia, for the Portsmouth and Roanoke rail-road, and talks of riding *in an hour* to Suffolk, which used to be deemed as much of an undertaking as a trip to Richmond now is.

Wreck of the ship New Jersey of Providence.—The ship Bashaw, Captain Blacklor, arrived at Boston, last Thursday from Batavia, and has communicated to the editor of the Commercial Gazette the following particulars:

"The English brig Reliance has been lost on Louisa Shoal, while employed in saving the property of the American ship New Jersey, wrecked there in November last. The English ship Madeline accompanied the Reliance in the wrecking expedition, had returned to Singapore with the crew and merchandize saved by both vessels, which, together with two boxes of dollars, amounted to about 40,000.—The property saved on a previous expedition amounted to about $9000. The remainder of the specie and some quicksilver were still left on the shoal, and another expedition was about ready to proceed in March with apparatus for blowing up the lower decks of the New Jersey, when it was expected there would be nothing to prevent their obtaining the rest of the property, the season of the year being favorable. The property already saved had been equally divided amoug the persons respectively concerned in the expedition without recourse to law and equity, and in such a manner as to prevent any further claim being made upon it."

Capture at sea and murder.—Another piece of information brought by Capt. Blacklor, is, that about the 16th of April, the English schooner Gem, of Leith, while on her way from Sourabaya, for New South Wales, was captured in the Sraits of Bally, by sixteen prow boats, and all hands murdered.

Hint for a "Cavalier Seul."—In certain cities of the south, where gentlemen having felt the icy chill of a refusal to an invitation to dance, where a lady who is declared to be engaging, declares herself engaged, a form is used which prevents any such disappointment. At the door of the *salon à danser* is a *corbeille* of artificial flowers, from which each visitor selects one and presents it to the lady of his choice. She wears the ornament in her *ceinture* until she has danced her two sets, and then returns it to her partner. Thus a lady who wears no bouquet is disengaged, and the offer of the flower saves the trouble of a speech and the pain of refusal.—[Le Cameleon.]

The *Berlin State Gazette* gives the following details upon the monument about to be raised to the memory of Guttenberg:—One of the bas-reliefs of the pedestal will represent Guttenberg showing to Faust the movable types he had invented, with an inscription underneath in Latin and in primitive-shaped letters, of the sublime sentence from Genesis—"God said let there be light, and there was light."—Another bas-relief will have engraved on it a representation of the first printing-press established by Guttenberg and his two partners. On a third bas-relief will be represented the distribution of the Holy Scriptures to the people.

Quite above board.—Samuel Terry, an English convict in New South Wales, is in possession of a clear income of sixty thousand pounds sterling. His several estates, containing upwards of 100,000 acres, and his property in the town of Sydney bring him in 10,000 pounds per annum. He has 17,000 heads of horned cattle, and 400 brood mares. All this property he has acquired since his emancipation.

[*From the New England Galaxy.*]

HUMAN LIFE,

OR THE FIRST AND LAST MINUTE.

Minutes Pass.—The anxious husband paces slowly across his study. He is a father, a man child is born unto him. Minutes pass—the child has been blessed by a parent, whom it cannot recognize, and pressed to that bosom, to which instinct alone guides for sustenance—the young wife too has faintly answered to a husband's questions, and felt his warm kiss on her forehead.

Hours pass.—The low moaning from the closely covered cradle, tells of the first wants of its occupant. The quiet tread of the nurse speaks of suffering around her: while her glad countenance says that the very suffering which she is trying to alleviate, is a source of joy; and the nameless articles, which from time to time she arranges on the hearth, tell of a new claimant for the courtesies and attentions of those who have progressed further on the pathway of existence.

Days pass.—Visiters are thronging the chamber, and the mother, pale and interesting after her recent sickness, is receiving their congratulations, and listening proudly to their praises of the little treasure, which lies asleep in its rocking bed at her feet.—The scene shifts, and the father is there with her alone, as the twilight deepens about them, while they are planning the future destiny of their child.

Weeks pass.—The eyes of the young mother are sparkling with health, and the rose blooms again on her cheek, and the cares of pleasure and home engage her attention, and the father is once more mingling with the world; yet they find many opportunities each day to visit the young inheritor of life; to watch over his dreamless slumber; to trace each other's looks in his countenance, and to ponder upon the felicity, of which he is the bearer to them.

Months Pass.—The cradle is deserted. But the chamber floor is strewed with play things, and there is a little one loitering among them, whose half lisped words and hearty laugh, and sunny countenance tell you that the entrance into life is over a pathway of flowers. The cradle is empty, but the last prayers of the parents are uttered over the small crib, which stands by their own bedside, and their latest attention is given to the peaceful breathings of its occupant.

Years Pass.—Childhood has strengthened into boyhood and gamboled along into manhood. Old connexions broken—parents are sleeping in their graves—new intimacies are formed—a new home is about him, new cares distract. He is abroad, struggling amid the business of life, or resting from it with those whom he has chosen from his own generation. Time is beginning to wrinkle his forehead, and thought has robbed his looks of their gaiety, and study has dimmed his eyes. Those who began life, after he had grown up, are fast crowding him out of it, and there are many claimants upon his industry and love for protection and support.

Years pass.—His own children have become men, and are quitting him, as he also quitted the home of his fathers. His steps have lost their elasticity—His hand has become familiar with his cane, to which he is obliged to trust in his walks. He has left the bustle which fatigued him. He looks anxiously in each day's paper among the deaths—and then ponders over the name of an old friend, and tries to persuade himself, that he is younger and stronger, and has a better hold upon life than any of his contemporaries.

Months pass.—He gradually diminishes the circle of his activity. He dislikes to go abroad, where he finds so many new faces, and he grieves to meet his former companions, after a short absence, they seem to have grown so old and infirm. Quiet enjoyments only are relished, a little conversation about old times—a sober game at whist—a religious treatise,—and early bed, form for him the sum total of his pleasure.

Weeks pass.—Infirmity keeps him in his chamber. His walks are limited to the small space between his easy chair and his bed. His swolled limbs are wrapped in flannels. His sight is failing—his ears refuse their duty, and his cup is but half filled, since otherwise, his shaking hands cannot carry it to his shrunk lips, without spilling its contents. His powers are weakened—his faculties are blunted—his strength is lost.

Days pass.—The old man does not leave his bed—his memory is failing—he talks, but cannot be understood—he asks questions, but they relate to the transactions of a former generation—he speaks of occurrences, but the recollection of no one arround him can go back to their scenes—he seems to commune with comrades, but when he names them, it is found that the waters of time and oblivion have covered their tombs.

Hours pass.—The taper grows dimmer and dimmer—the machinery moves yet more and more slowly—the sands are fewer as they measure the allotted span. The motion of those about him is unheeded, or becomes a vexation. Each fresh inquiry after his health is a knell. The springs of life can no longer force on its wheels—the "silver cord" is fast untwisting—the pitcher is broken at the fountain—and time "is a burthen." His children are about him, but he heeds them not—his friends are near, but he does not recognize them. The circle is completed. The course is run, and utter weakness brings the damp, which ushers in the night of death.

Minutes pass.—His breathing grows softer and lower—his pulse beats fainter and feebler. Those around him are listening, but cannot tell when they cease. The embers are burnt out—and the flake flashes not before it expires. His "three-score years and ten" are numbered. Human life "is finished."

EARTH'S WEARY ONES.—By Mrs. Locke.

Open the grave, the vaulted grave,
For the weary ones of earth—
They are pressing on, and their bosoms heave
For the morn of heavenly birth;
They are pressing on—in the mockery
Of joy and of hope—they long to die;
They are pressing on, in the strength of power,
And the pride of wealth—they wait the hour.

Ye may trace them in the hall of song,
By the lamp's high flaming light.
Where pipe, and tabour their notes prolong,
And jewels are sparkling bright,
In the show of beauty, mirth, and pride,
Light down the mazy dance they glide;
By the pallid cheek 'neath the smile they wear,
And the smothered sigh, ye may trace them there!

They are decked in the ruby's ruddy glow,
And wealth of the far down sea;
And the diamond shines but to mock their wo,
And proclaim the spirit free.
But alas, alas for the fond hopes crushed,
For the tones of love in the dark tomb hushed,
For affections changed and vows forgot—
Nor gems, nor pearls, can that memory blot.

Raise ye the veil at the festal hour,
From that fair unfurrowed brow;
A bride!—but wo for the bridegroom's power—
The grave ye may open now;
From the glittering robes of royalty,
Peers the broken heart thro' the sunken eye;
And the wreath of fame crowns the weary hand—
Mid the honored crowd, they hopeless stand.

Ye may trace them in the house of prayer,
On the lowly bended knee—
With uplifted eye and a brow of care—
The burthened soul to free.
Then open the grave—they are pressing on,
In the beauty of youth, but a visage wan;
In festal halls—'neath the laurel's wave,
They are weary of earth—open the grave.

THE CIVIL ENGINEER AND MACHINIST. PRACTICAL TREATISES OF CIVIL ENGINEERING, ENGINEER BUILDING, MACHINERY, MILL WORK, ENGINE WORK, IRON FOUNDING, &c. &c. Designed for the use of Engineers, Iron Masters, Manufacturers, and Operative Mechanics. By Charles John Blunt and R. Macdonald Stephenson, Civil Engineers, Architects, &c. &c. Consisting of examples worked through their entire detail of fundamental principle, organization, and process of execution; and being in every case the known great works of British and Foreign Engineering complete at length. Exemplifying the practical application of the Laws of Statics, Dynamics, Hydraulics, Hydrostatics, Pneumatics, and General Mechanics; accompanied by full reports, specifications, estimates, and journal of progress; and illustrated by the formulæ, calculations, tables, &c. in use by the first authorities. The working plans and general views of these important subjects are laid down in original drawings of great practical accuracy and careful execution, and occupying upwards of five hundred folio and imperial folio plates. In divisions, containing from ten to fourteen plates, in a portfolio. Price one guinea. Division I. is received. For sale, and subscriptions are solicited, by

WM. A. COLMAN, No. 122 Broadway,
English Publication Warehouse.

s22 3tf

TO RAILROAD COMPANIES.

☞ The subscriber having erected extensive machinery for the manufacture of the Iron Work for Railroad Cars, and having made arrangements with Mr. Phiehas Davis, patentee of the celebrated wire drilled wheels, will enable him to fit up at short notice any number of cars which may be wanted.

The superiority of the above Wheels has been fully tested on the Baltimore and Ohio Railroad, where they have been in constant use for some months past. Having fitted up Wheels for six hundred Cars, the subscriber flatters himself that he can execute orders in the above line to the satisfaction of persons requiring such work. The location of the shop being on the tide-waters of the Chesapeake Bay, will enable him to ship the work to any of the Atlantic ports, on as reasonable terms as can be offered by any person. All orders will be executed with despatch, and the work warranted. When there are but a few setts wanted, the chills and patterns are to be furnished, or the company pay the expense of making the same, and if required, will be sent with the wheels. All Wheels furnished and fitted by the subscriber will have no extra charge on account of the patent right.

Samples of the above Wheels, which have been broken to show their superiority, may be seen at the office of the Railroad Journal; at the Depot of the Boston and Providence Railroad, Boston; and at John Arnold's shop, near the Broad street House, Philadelphia. All orders directed to W. & E. PATTERSON, Baltimore, or to the subscriber, Joppa Mills, Little Gunpowder Post-Office, Baltimore county, Maryland, will be attended to.

DEAN WALKER. s 30

STEPHENSON,

Builder of a superior style of Passenger Cars for Railroads

No. 264 Elizabeth street, near Bleecker street, New-York.

☞ RAILROAD COMPANIES would do well to examin these Cars; a specimen of which may be seen on that part o ne New-York and Harlæm Railroad, now in operation.

J 15 tf

RAILROAD CAR WHEELS AND BOXES,

AND OTHER RAILROAD CASTINGS.

☞ Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subscribers at Paterson, or 60 Wall street, New-York, will be promptly attended to. Also, CAR SPRINGS.

Also, Flange Tires turned complete.

J8 ROGERS, KETCHUM & GROSVENOR.

NOVELTY WORKS,

Near Dry Dock, New-York.

☞ THOMAS B. STILLMAN, Manufacturer of Steam Engines, Boilers, Railroad and Mill Work, Lathes, Presses, and other Machinery. Also, Dr. Nott's Patent Tubular Boilers, which are warranted, for safety and economy, to be superior to any thing of the kind heretofore used. The fullest assurance is given that work shall be done well, and on reasonable terms. A share of public patronage is respectfully solicited. m18

INSTRUMENTS.

SURVEYING AND NAUTICAL INSTRUMENT MANUFACTORY.

☞ EWIN & HEARTTE, at the sign of the Quadrant, No. 53 South street, one door north of the Union Hotel, Baltimore, beg leave to inform their friends and the public, especially Engineers, that they continue to manufacture to order and keep for sale every description of Instruments in the above branches, which they can furnish at the shortest notice, and on fair terms. Instruments repaired with care and promptitude.

For proof of the high estimation on which their Surveying Instruments are held, they respectfully beg leave to tender to the public perusal, the following certificates from gentlemen of distinguished scientific attainments.

To Ewin & Heartte.—Agreeably to your request made some months since, I now offer you my opinion of the Instruments made at your establishment, for the Baltimore and Ohio Railroad Company. This opinion would have been given at a much earlier period, but was intentionally delayed, in order to afford a longer time for the trial of the Instruments, so that I could speak with the greater confidence of their merits, if such they should be found to possess.

It is with much pleasure I can now state that notwithstanding the Instruments in the service procured from our northern cities are considered good, I have a decided preference for those manufactured by you. Of the whole number manufactured for the Department of Construction, to wit: five Levels, and five of the Compasses, not one has required any repairs within the last twelve months, except from the occasional imperfection of a screw, or from accidents, to which all Instruments are liable. They possess a firmness and stability, and at the same time a neatness and beauty of execution, which reflect much credit on the artists engaged in their construction.

I can with confidence recommend them as being worthy the notice of Companies engaged in Internal Improvements, who may require Instruments of superior workmanship.

JAMES P. STABLER,
Superintendent of Construction of the Baltimore and Ohio Railroad.

I have examined with care several Engineers' Instruments of your Manufacture, particularly Spirit levels, and Surveyor's Compasses; and take pleasure in expressing my opinion of the excellence of the workmanship. The parts of the levels appeared well proportioned to secure facility in use, and accuracy and permanency in adjustments.

These Instruments seemed to me to possess all the modern improvement of construction, of which so many have been made within these few years; and I have no doubt but they will give every satisfaction when used in the field.

WILLIAM HOWARD, U. S. Civil Engineer.
Baltimore, May 1st, 1833.

To Messrs Ewin and Heartte—As you have asked me to give my opinion of the merits of those instruments of your manufacture which I have either used or examined, I cheerfully state that as far as my opportunities of my becoming aquainted with their qualities have gone, I have great reason to think well of the skill displayed in their construction. The neatness of their workmanship has been the subject of frequent remark by myself, and of the accuracy of their performance I have received satisfactory assurance from others, whose opinion I respect, and who have had them for a considerable time in use. The efforts you have made since your establishment in this city, to relieve us of the necessity of sending elsewhere for what we may want in our line, deserve the unqualified approbation and our warm encouragement. Wishing you all the success which your enterprize so well merits, I remain, yours, &c.

B. H. LATROBE,
Civil Engineer in the service of the Baltimore and Ohio Railroad Company.

A number of other letters are in our possession and might be introduced, but are too lengthy. We should be happy to submit them, upon application, to any person desirous of perusing the same. m25

The following Requiem, from the pen of *Grenville Mellen*, and Hymn, by Isaac McLellan, Jr. were sung at the Lafayette Celebration in Boston.

REQUIEM.

Breathe mournful music round!
In cypress wreathe your melancholy lyres,
And, as yesweep them, yield the quivering wires
To sorrow's gushing sound!

Shadow your brows, and weep!
A nation's voice peals from the booming sea,
Grief's far, faint requiem, o'er the Great and Free,
Laid in his marble sleep!

He's pass'd within the veil;
And over him, in loud and long lament,
A world's wo breaks upon the firmament,
In farewell and in wail.

We hear an empire's tread;
A land, mid shade of banner and of plume,
Pours, from one mighty heart above the tomb,
Its tribute to the dead.

One pulse is echoing there!
The far-voiced clarion and the trump are still,
And man's crush'd spirit to the changeless *will*.
Bows in rebuke and prayer!

Gather about his pall,
And let the sacred memory of years
That he made glorious, call back your tears,
Or light them as they fall!

HYMN.

His race is run, his battle's o'er,
He leads the armies forth no more,
The blooming gun, the tolling bell
Have paid to him the last farewell!

He vanished like the glorious sun
When his appointed course is run;
Yet long a brilliant track of light
Marks where he melted from the sight.

His name, as passing years shall roll,
Shall brighter shine on glory's scroll.
Old age shall love to tell his fame,
And youth with reverence speak his name.

That name, shall like a beacon star,
From the dim past, cast light afar;
And o'er the future's rolling tide,
The star of Lafayette shall guide.

The two following delightful poems, by Miss Mary Ann Browne, are natural and touching:—

MAN'S LOVE.

When woman's eye grows dull,
And her cheek paleth,
When fades the beautiful,
Then man's love faileth;
He sits not beside her chair,
Clasps not her fingers,
Twines not the damp hair,
That o'er her brow lingers.

He comes but a moment in
Though her eye lightens,
Though her cheek, pale and thin,
Feverishly brightens;
He stays but a moment near,
When that flush fadeth,
Though true affection's tear
Her soft eyelid shadeth.

He goes from her chamber straight
Into life's jostle,
He meets at the very gate
Business and bustle;
He thinks not of her within,
Silently sighing,
He forgets in that noisy din
That she is dying!

And when her young heart is still,
What though he mourneth,
Soon from his sorrow chill
Wearied he turneth.
Soon o'er her buried head
Memory's light setteth,
And the true-hearted dead,
Thus man forgetteth!

WOMAN'S LOVE.

When man is waxing frail,
And his voice is thin and weak,
And his lips are parched and pale,
And wan and white his cheek;
Oh, then doth woman prove
Her constancy and love!

She sitteth by his chair,
And holds his feeble hand;
She watcheth ever there,
His wants to understand;
His yet unspoken will
She hasteth to fulfill.

She leads him, when the noon
Is bright, o'er dale or hill,
And all things, save the tune
Of the honey bees are still,
Into the garden bowers,
To sit 'midst herbs and flowers.

And when he goes not there,
To feast on breath and bloom,
She brings the posy rare
Into his darkened room;
And 'neath his weary head
The pillow smooth doth spread.

Until the hour when death
His lamp of life doth dim,
She never weareth,
She never leaveth him;
Still near him night and day,
She meets his eye alway.

And when his trial's o'er,
And the turf is on his breast,
Deep in her bosom's core
Lie sorrows unexprest;
Her tears, her sighs, are weak,
Her settled grief to speak.

And though there may arise
Balm for her spirit's pain,
And though her quiet eyes
May sometimes smile again;
Still, still, she must regret,
She never can forget!

RAILROAD AND CANAL MAP.

THIS long promised Map is now ready for those who wish it. Its size is 24 by 40 inches. It is put up in a convenient pocket form, in morocco covers, and accompanied by over 70 pages of letter press, giving a concise description of, or reference to, each Road and Canal delineated on the Map. It will also be put up in *Marble Paper* covers, so as to be forwarded by mail to any part of the country; the postage of which, cannot exceed 44, and probably not 25 cents, to any part of the county.

Published at 35 Wall street, N. Y., by
a12 tf D. K. MINOR & J. E. CHALLIS.

SURVEYORS' INSTRUMENTS.

☞ Compasses of various sizes and of superior quality warranted.

Leveling Instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by E. & G. W. BLUNT, 154 Water street,
J31 6t corner of Maidenlane.

PATENT HAMMERED SHIP, BOAT, AND RAILROAD SPIKES.

☞ Railroad Spikes of every description required, made at the Albany Spike Factory.

Spikes made at the above Factory are recommended to the public as superior to any thing of the kind now in use.

Ship and Boat Spikes made full size under the head, so as not to admit water.

Orders may be addressed to Messrs. ERASTUS CORNING & CO., Albany, or to THOMAS TURNER, at the Factory, Troy, N. Y. sept. 13 1y

RAILWAY IRON.

☞ Ninety-five tons of 1 inch by ½ inch, } *Flat Bars* in
200 do. 1½ do. ½ do. } lengths of 14 to 18
40 do. 1½ do. ½ do. } feet counter sunk
800 do. 2 do. ½ do. } holes, ends cut at
600 do. 2½ do. ½ do. } an angle of 45 de-
soon expected. } grees with spli-
} cing plates, nails
} to suit.

250 do. of Edge Rails of 36 lbs. per yard, with the requisite chairs, keys and pins.

Wrought Iron Rims of 30, 33, and 36 inches diameter for Wheels of Railway Cars, and of 60 inches diameter for Locomotive wheels.

Axles of 2⅛, 2⅜, 2½, 3, 3½, 3¾, and 3½ inches diameter for RailwayCars and Locomotives of patent iron.

The above will be sold free of duty, to State Governments and Incorporated Governments, and the Drawback taken in part payment. A. & G. RALSTON.
9 South Front street, Philadelphia.

Models and samples of all the different kinds of Rails, Chairs, Pins, Wedges, Spikes, and Splicing Plates, in use, both in this country and Great Britain, will be exhibited to those disposed to examine them. d71meowr

PATENT RAILROAD, SHIP AND BOAT SPIKES.

☞ The Troy Iron and Nail Factory keep constantly for sale a very extensive assortment of Wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years successful operation and now almost universal use in the United States (as well as England, where the subscriber obtained a Patent,) are found superior to any ever offered in market.

Railroad Companies may be supplied with Spikes having countersink heads suitable to the holes in iron rails, to any amount and on short notice. Almost all the Railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

☞ All orders directed to the Agent, Troy, N. Y., will be punctually attended to.
HENRY BURDEN, Agent.

Troy N. Y. July, 1831.

☞ Spikes are kept for sale, at factory prices, by I. & J. Townsend, Albany, and the principal Iron Merchants in Albany and Troy; J. I. Brower, 222 Water street, New-York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

P. S.—Railroad Companies would do well to forward their orders as early as practical, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his Spikes.

J23 1am H. BURDEN.

ALBANY SEED STORE AND HORTICULTURAL REPOSITORY.

The subscriber having resumed the charge of the above establishment, is now enabled to furnish traders and others with FRESH GARDEN SEEDS, upon very favorable terms, and of the growth of 1833, *warranted* of the best quality.

The greatest care and attention has been bestowed upon the growing and saving of Seeds, and none will be sold at this establishment excepting those raised expressly for it, and by experienced seedsmen; and those kinds imported which cannot be raised to perfection in this country; these are from the best houses in Europe, and may be relied upon as genuine.

It is earnestly requested whenever there are any failures here after, they should be represented to the subscriber; not that it is possible to obviate unfavorable seasons and circumstances, but that satisfaction may be rendered and perfection approximated.

ALSO—French Lucern, White Dutch Clover, White Mulberry Seed, genuine Mangel Wurtzel, Yellow Locust, Ruta Baga, and Field Turnip Seeds, well worth the attention of *Farmers*.
W. THORBURN,
347 N. Market st. (opposite Post Office.

☞ Catalogues may be had at the Store; if sent for by mail, will be forwarded gratis. Orders solicited early, as the better justice can be done in the execution.

*** Mr. Thorburn is also Agent for the following publications, to wit:—

NEW YORK FARMER and American Gardener's Magazine.

MECHANICS' MAGAZINE and Register of Inventions & Improvements.

AMERICAN RAILROAD JOURNAL and Advocate of Internal Improvements; and the

LOCOMOTIVE ENGINES.

☞ THE AMERICAN STEAM CARRIAGE COMPANY, OF PHILADELPHIA, respectfully inform the public, and especially Railroad and Transportation Companies, that they have become sole proprietors of certain improvements in the construction of Locomotive Engines, and other railway carriages, secured to Col. Stephen H. Long, of the United States Engineers, by letters patent from the United States, and that they are prepared to execute any orders for the construction of Locomotive Engines, Tenders, &c. with which they may be favored, and pledge themselves to a punctual compliance with any engagements they may make in reference to this line of business.

They have already in their possession the requisite apparatus for the construction of three classes of engines, viz. engines weighing four, five, and six tons.

The engines made by them will be warranted to travel at the following rates of speed, viz. a six ton engine at a speed of 15 miles per hour; a five ton engine at a speed of 18 miles per hour; a four ton engine at a speed of 22 1 2 miles per hour. Their performance in other respects will be warranted to equal that of the best English engines of the same class, with respect not only to their efficiency in the conveyance of burthens, but to their durability, and the cheapness and facility of their repairs.

The engines will be adapted to the use of anthracite coal pine wood, coke, or any other fuel hitherto used in locomotive engines.

The terms shall be quite as favorable, and even more moderate, than those on which engines of the same class can be procured from abroad.

All orders for engines, &c. and other communications in reference to the subject, will be addressed to the subscriber, in the city of Philadelphia, and shall receive prompt attention.

By order of the Company,
WILLIAM NORRIS, Secretary.

December 2d, 1833.

Fr further information on this subject see No 49, page 772, Vol. 2, of Railroad Journal.

RAILROAD IRON, &c.

☞ Sealed proposals will be received until the 15th day of September next, for the immediate delivery thereafter at Suffolk, Va., of 250 tons of Railroad Iron in bars from 14 to 18 feet in length—2 inches wide by half an inch thick—pierced with countersunk holes ⅞ths of an inch in diameter, 1 foot or 13 inches apart from centre to centre; and for 16 tons of spikes 4 inches long end ⅞ths of an inch in diameter. Specimens of the latter, and drawings of the rail showing the size and shape of the hole, shape of the rail, and angle of the scarf, will accompany each bid. WALTER GWYNN, Civil Engineer.
Engineer's Office, Portsmouth & R. R. R.
Suffolk, Va., August 18. a 30 3t

☞ TOWNSEND & DURFEE, of Palmyra, *Manufacturers of Railroad Rope*, having removed their establishment to Hudson, under the name of *Durfee, May & Co.* offer to supply Rope of any required length (without splice) for inclined planes of Railroads at the shortest notice, and deliver them in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, Eng. M. & H. R. R. Co., Albany; or James Archibald, Engineer Hudson and Delaware Canal and Railroad Company, Carbondale, Luzerne county, Pennsylvania.
Hudson, Columbia county, New-York,
January 29, 1833.

SURVEYING AND ENGINEERING INSTRUMENTS.

☞ The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely *new*: among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also, a Railroad Goniometer, with two Telescopes—and a Levelling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes. WM. J. YOUNG,
Mathematical Instrument Maker, No. 9 Dock street, Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad. I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to lateral angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,
JAMES P. STABLER, Superintendant of Construction of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors. E. H. GILL, Civil Engineer.

Germantown, February, 1833.

For a year past I have used Instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.
HENRY R. CAMPBELL, Eng. Philad. and Germant. and Norrist. Railroad
m1 1y